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*Docket Number:*

**A-90-16**

**BEFORE THE  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**COMMENTS OF THE  
CHEMICAL MANUFACTURERS ASSOCIATION  
ON PROPOSED HAZARDOUS ORGANIC NESHP**

	)	
National Emission Standards for	)	
Hazardous Air Pollutants for Source	)	Docket Nos. A-90-19
Categories; Organic Hazardous Air	)	A-90-20
Pollutants from the Synthetic Organic	)	A-90-21
Chemical Manufacturing Industry and	)	A-90-22
Seven Other Processes	)	A-90-23
57 <u>Fed. Reg.</u> 62608 (Dec. 31, 1992)	)	
	)	

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April 19, 1993

Air Docket Office (LE-131)  
U.S. Environmental Protection Agency  
401 M Street, S.W.  
Washington, D.C. 20460

Attention: Docket Numbers A-90-19, A-90-20, A-90-21, A-90-22,  
A-90-23

Dear Sir Or Madam:

The Chemical Manufacturers Association (CMA) is pleased to submit copies of the enclosed comment on the Environmental Protection Agency's proposed "National Emissions Standards for Hazardous Air Pollutants For Source Categories; Organic Hazardous Air Pollutants from the Synthetic Organic Pollutants from the Synthetic Organic Chemical Manufacturing Industry and Seven Other Processes." The rule was proposed in the Federal Register on December 31, 1992.

CMA is a nonprofit trade association whose member companies represent more than 90 percent of the productive capacity for basic industrial chemicals in the United States. The proposed rule will apply almost exclusively to facilities owned and operated by CMA member companies. Therefore, CMA has a vital interest in this rulemaking.

CMA appreciates the opportunity to provide comments on this important rulemaking. If you have any questions, please contact Karen Fidler, of my staff, at (202) 887-1176.

Sincerely,

## EXECUTIVE SUMMARY

The Chemical Manufacturers Association (CMA) is pleased to present comments on the proposed "National Emissions Standards for Hazardous Air Pollutants for Source Categories; Organic Hazardous Air Pollutants from the Synthetic Organic Manufacturing Industry and Seven Other Categories", 57 Fed. Reg. 62608 (December 31, 1992). The abbreviated title for this proposed rule is the Hazardous Organic NESHAP or the HON.

CMA is a nonprofit trade association whose member companies represent more than 90 per cent of the productive capacity for basic industrial chemicals in the United States. The HON will apply almost exclusively to facilities owned and operated by CMA member companies. Therefore, CMA has a vital interest in the proposal.

CMA supported stringent control of Hazardous Air Pollutants (HAPs) under the Clean Air Act Amendments of 1990. We are still committed to stringent control of HAP emissions, and we support Environmental Protection Agency's (EPA)'s effort to promulgate maximum achievable control technology (MACT) standards within the strict timetable required under the Act.

As an aid to the reader, the following Executive Summary is divided into sections as they approximately appear in the body of comments.

### Introduction

The HON is the most comprehensive air toxics regulation ever proposed. The rule addresses emissions from process vents, storage tanks, transfer operations, wastewater operations and equipment leaks in the Synthetic Organic Chemical Manufacturing Industry (SOCMI). It will cover more emissions at more sources for more costs than any other previous rule. The comprehensive nature of this proposal makes cost effectiveness a prime concern for CMA. CMA encourages the Agency to review the proposal for areas where unnecessary or duplicative requirements can be deleted.

### Applicability

EPA takes a reasonable approach in fashioning the applicability criteria for the rule. By characterizing the SOCMI as a single source category, the Agency attempts to regulate a large and diverse industry in a single rulemaking. Because of the size of the SOCMI, this single rulemaking satisfies Congress' intent to regulate 40 source categories in the first round of MACT standards. EPA retains the discretion to subcategorize the SOCMI for the purposes of future rulemakings.

The "primary intended product" approach will help sources and regulators make applicability determinations. The proposal is an improvement over prior rules which based applicability on co-products, by-products, and intermediates. By focusing on the

primary intended product, applicability determinations will be easier and more consistent. Further clarifications recommended by CMA will improve the process of applicability determinations even more.

Sources and regulators will encounter difficulty where other requirements overlap with the HON. Therefore, the HON should deal definitively with overlapping requirements by specifying which requirements the HON overrides. Also, the references in the HON to the General Provisions to Part 63 (subpart A) must be deleted. If EPA wishes to include references to the General Provisions in the HON, the HON should be amended through public notice and comment after the General Provisions are promulgated.

The rule properly applies to major sources in the SOCMi source category. The definition of "major source" should consider all quantifiable limitations. Also, negative demonstrations for area sources should be deleted from the rule. If EPA determines that reports from area sources are necessary, then a mere notification should be sufficient.

### **Determination of MACT**

In general, EPA has done a reasonable job in determining the minimum statutory requirements (the MACT "floor") for controlling emission points. With the exception of storage tanks, EPA's method satisfies the criteria laid out in the statute. In setting the required control level, however, EPA should recognize that its method overstates the MACT floor.

The Group 1 and Group 2 distinction is an integral element of the MACT floor under the HON. The distinction correctly attempts to reflect the real operation of existing sources in the SOCMi source category. EPA's method for determining the floor requires the Group 1 and Group 2 concept -- it is reasonable and perfectly acceptable under the statute.

EPA must do a better job of considering the costs and benefits of emissions reduction where the proposed MACT exceeds the floor. The model plant used by the Agency is oversimplified and leads to inaccurate estimates. A more realistic assessment of costs and emission benefits suggests that MACT should not exceed the floor. EPA also should more fully examine the multimedia impacts of the proposed MACT.

### **Compliance**

With the exception of certain monitoring, recordkeeping, and reporting requirements, CMA supports the compliance approach under this rule. Compliance is properly regarded as the operation of the prescribed Reference Control Technology (RCT) or achieving the required level of control. EPA also properly allows for alternative compliance measures, such as emissions averaging, and alternative control technologies.

The rule reasonably calls for sources to establish surrogate parameters to measure the proper operation of control devices during a set operating day. In using these measurements, EPA should allow three percent deviation from the parameter range in a reporting period before a source may be considered in violation of the standard. This approach reasonably accounts for inevitable variations in operating parameters.

As noted above, the HON is the most ambitious air toxics regulation ever proposed. Due to permitting, equipment, and engineering delays, sources will likely encounter difficulty meeting the three year compliance date. Therefore, sources should be able to receive the one year extension allowed under the statute upon showing the time is necessary for the installation of controls. The extension should be available up to the compliance date. Also, existing emission points which become subject to control requirements should be like other existing sources -- they should have up to three years to reach compliance.

#### Monitoring, Recordkeeping, and Reporting

A significant part of the compliance costs associated with the HON will be due to monitoring, recordkeeping, and reporting requirements. Although these requirements have no direct environmental benefit, CMA recognizes that some level of monitoring, recordkeeping, and reporting is necessary to determine compliance with the standard. EPA has made credible progress in limiting the unnecessary and duplicative monitoring, recordkeeping, and reporting requirements. However, more progress should be made before the rule is ready to be promulgated.

For instance, the HON should specifically allow for validated "data compression" monitoring and recordkeeping devices. These state of the art methods are reliable and efficient. The HON should allow other alternative approaches to monitoring such as interlock devices. The HON should encourage such progressive and innovative monitoring and recordkeeping techniques.

Emission points that are not subject to control should be subject to minimal monitoring, recordkeeping, and reporting. CMA encourages the Agency to consider whether Group 2 emission points should be subject to continuous monitoring where such monitoring leads to no environmental benefit.

The rule properly calls for deviation reporting on a semiannual basis. This system meets the information needs of enforcement authorities, and also limits the reporting burden on sources. Likewise, EPA should eliminate requirements for "negative" reports.

### Process Vents

EPA fails to justify the option selected as the proposed control level for process vents. EPA must conduct a proper accounting of costs and emissions benefits to support the MACT selection for process vents. EPA must also provide better support for requiring 98 percent control efficiency for control devices on existing process vents.

The rule reasonably allows for Total Resource Effectiveness (TRE) determinations to be done through engineering estimates where the TRE is greater than four. EPA correctly recognizes that engineering estimates yield reliable TRE figures and that testing for vents above TRE four is wasteful. We recommend that allowance for engineering knowledge be expanded for halogenated vent streams.

As noted above, CMA supports the use of alternative monitoring parameters, and we support the requirements for site-specific parameters.

CMA supports the definition of Group 1 and Group 2 process vents. The definitions properly take into account the characteristics that go into the Group determination such as flow rate. We recommend that the low flow cut-off in the subpart G definition also be included in the subpart F definition of process vent. In addition, we find the thirty data prenotification for performance tests to be a reasonable time period.

### Storage Tanks

CMA supports EPA's proposal to allow facilities to make improvements on existing tanks storing HAPs as an alternative to installing a closed vent system and a control device. Clean Air Act section 112(d) specifically allows for such alternatives.

We question the control level selected for existing tanks. While EPA assumes a control level of 95 per cent, the Background Information Document (BID) and CMA's data suggest that existing storage tanks with refrigerated condensers cannot meet this requirement. EPA should adjust the control level required for existing storage tanks to 90 per cent efficiency.

EPA has not adequately justified the proposed control levels for large storage tanks, as is required when setting MACT more stringent than the floor. CMA recommends that MACT for large storage tanks be set at a level no more stringent than the floor.

The maintenance period allowed for capture and control systems is too short. CMA recommends that a source be allowed more time for those repairs that cannot be performed within 72 hours, as long as liquid levels in the tank are not raised. For repair of internal and external floating roofs, the rule reasonably allows for up to two 30-day extensions for performing required procedures. The rule also properly recognizes that some inspections of external floating roofs may be unsafe.



CMA supports the proposed compliance extensions to upgrade existing tanks with external floating roofs. The same provision should also apply to tanks with internal floating roofs.

### Transfer Operations

EPA has correctly handled transfer racks that use vapor balancing. CMA supports the exclusion of transfer racks with vapor balancing from subpart G requirements. CMA also supports the option to include vapor balancing as a control option for the purposes of emissions averaging. EPA also correctly defers to Department of Transportation (DOT) regulations by allowing HAPs to be loaded into vessels that meet DOT pressure testing requirements.

Because there may be greater than 15 days between loading events, the rule should allow repairs to be completed within 15 days or the next loading event. In addition, the rule should allow vapor pressure to be established at the average annual temperature of the material loaded.

### Wastewater

CMA has serious concerns relating to the wastewater provisions of the proposed rule. CMA believes that the requirements for wastewater treatment are critical to the proper implementation of the HON by the regulated community and as such, must be based upon the soundest scientific technology currently available. To this end, CMA objects to the Agency's selection of steam stripping as the reference control technology.

CMA believes that EPA has failed to support steam stripping as the reference control technology. EPA's designed steam stripper, which has been proposed as the reference control technology, is unable to achieve the designated removal efficiencies for the majority of the targeted compounds. EPA's cost and environmental impact analysis for steam stripping are inadequate, resulting in underestimated costs and overestimated benefits for the proposed rule. CMA strongly suggests that EPA consider designating additional technologies as reference control options.

CMA also believes that EPA must re-examine and modify the proposed requirements for cooling tower waters, publicly owned treatment works (POTW) and maintenance wastewaters. As currently written, the provisions for cooling tower waters are confusing and appear to encompass a wide range of requirements that are inappropriate or duplicative. CMA believes that this is also the case with the requirements for POTW and maintenance wastewater. In particular, control of wastewaters discharged to POTW will be regulated under provisions of the Clean Water Act. Likewise, the management of maintenance wastewaters will be part of a plant's air permit.



## **Emissions Averaging**

CMA supports emissions averaging as an economically and environmentally beneficial approach to emissions control. Many sources will need the averaging option in order to meet HON requirements which are impracticable. EPA makes great strides in the proposal to make emissions averaging a viable alternative for sources.

Emissions averaging is consistent with the Clean Air Act. The Administrator has discretion to define "source" in a way that allows averaging for emission points in a single source category or across source categories as long as they are part of the same facility. As the proposal is written, CMA does not disagree with the limitation of averaging only to points within the source category. However, if EPA concludes that relative risk must be considered under emissions averaging, then the limitation on inter-source category trading must be removed.

CMA strongly supports the proposal for an annual compliance period for emissions averaging, with quarterly limits. Quarterly limits based on permitted allowable levels will protect against emission spikes and also avoid penalizing sources for reducing the emissions of their credit generating units.

If the rule imposes a discount factor on credits, any costs savings may be eliminated and sources will have little incentive to use averaging. CMA supports banking of emission credits, and the inclusion of equipment leaks and pollution prevention reductions as emission credits.

## **Initial Reporting Requirements**

The rule reasonably calls for an initial reporting system based on an initial notification, an implementation plan, and a notification of compliance status. CMA agrees with the timing of these reports: the initial notification due date is based on promulgation of the standard, and the implementation plan and notification of compliance status due dates are based on the compliance date.

The initial notification is a reasonable means for a facility to inform EPA of its expected coverage under the HON. However, area sources are not subject to the HON and should not be subject to reporting under the initial notification. If EPA decides it is necessary to include area sources in the initial notification, then the rule should state in subpart F that a mere notification is all that is required.

The rule appropriately requires an implementation plan only if an operating permit application has not been submitted by a source. The implementation plan should not include a certification of compliance.

CMA supports EPA's decision not to require repetitive information in the implementation plan and repetitive testing reports in the notification of compliance status. We support EPA's attempts here to avoid unnecessary and duplicative reporting.

CMA supports the requirements for sources to specify operating parameter ranges and operating days in the notification of compliance status. These provisions allow for site specific conditions to be considered. These considerations are important in forming the basis for compliance determinations.

The first periodic report should cover the six month period after the notification of compliance status is filed.

#### Subpart H - Equipment Leaks

CMA was a party to the Regulatory Negotiation which forms the basis for proposed subpart H, "National Emissions Standards for Organic Hazardous Air Pollutants From Synthetic Organic Chemical Manufacturing Industry Equipment Leaks". As a signatory, CMA is precluded from commenting on the proposal in so far as it reflects the agreements reached in the regulatory negotiation. CMA encourages the Agency to carefully consider the comments offered by CMA members companies on their own behalf.

#### Conclusion

EPA staff should be congratulated for their efforts to complete the HON proposal. CMA supports the timely promulgation of air toxics standards under the Clean Air Act, and we believe the HON proposal meets the statutory timeline. Because of the comprehensive scope of the rule, EPA should be especially sensitive to the burden placed on individual sources.

EPA must reconsider the proposed MACT standards where the proposal exceeds the statutory floor. CMA believes the input provided in these comments serves to guide the Agency towards MACT standards that meet the requirements of the Clean Air Act.

The rule should eliminate all unnecessary or duplicative monitoring, recordkeeping, and reporting. Unwarranted administrative costs are an acute concern for CMA in this comprehensive rulemaking.

Emissions averaging is an integral element of the HON. This innovative approach to emissions control will be extremely important for sources where the referenced control is impracticable or impossible to achieve.

CMA appreciates the opportunity to state our positions on this rulemaking that is so vital to our industry. CMA remains committed to working positively and

proactively with EPA in developing workable regulations to implement the Clean Air Act Amendments of 1990.

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## I. INTRODUCTION

The Chemical Manufacturers Association is pleased to present comments on the proposed "National Emissions Standards for Hazardous Air Pollutants For Source Categories; Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry and Seven Other Processes", 57 Fed. Reg. 62608 (December 31, 1992). This proposed rule is commonly known as the Hazardous Organics NESHAP, or the HON.

The Chemical Manufacturers Association (CMA) is a nonprofit trade association whose member companies comprise over ninety per cent of the productive capacity for basic industrial chemicals in the United States. The Synthetic Organic Chemical Manufacturing Industry (SOCMI) affected by the HON consists almost entirely of CMA member companies. Since CMA members will be almost exclusively affected by the HON, CMA has a vital interest in this rulemaking.

CMA supported the stringent control of Hazardous Air Pollutants (HAPs) during the debate over the Clean Air Act Amendments of 1990 (CAAA). CMA remains committed to the principal of emission reductions -- CMA members are active participants in voluntary emission reduction programs sponsored by the Environmental Protection Agency (EPA or "the Agency") as well as CMA's own Responsible Care® program. We will continue to work in a positive and proactive manner with EPA to develop the implementing regulations under the CAAA.

The proposed HON represents an achievement for EPA. As required under section 112(d) of the Clean Air Act (CAA or "the Act"), the rule will establish Maximum Achievable Control Technology (MACT) standards for major sources in the SOCMI source

category. The HON MACT standards will apply to emissions of HAPs from process vents, storage tanks, transfer operations, wastewater operations, and equipment leaks. For equipment leaks, the HON will also apply to seven processes outside the SOCMI.

The Agency has done a credible job developing an extremely broad and complicated proposal under the tight timelines required by the CAA. In many areas, EPA makes sensible and innovative proposals for regulating HAP emissions under the new CAA. In other areas, however, the proposal must be revised to better meet legal, technical, or policy requirements.

In the comments which follow, CMA points out where the Agency makes reasonable proposals to meet the goals and requirements of the Act. CMA also observes where the rule should be changed.

Where appropriate, we offer sensible alternatives to those objectionable provisions.

#### **A. THE HON IS UNPRECEDENTED IN SCOPE AND COMPLEXITY**

The HON is truly unprecedented. Never before has EPA proposed such a comprehensive and broad reaching air pollution regulation for an entire industry. SOCMI sources are currently subject to many requirements under existing state and federal air pollution regulations, but none approach the HON in scope or overall impact.

The HON is unprecedented, but it is also precedential. The rule is one of the first major air toxics standards proposed under section 112(d) of the CAA. Over the next seven years, the Act requires EPA to promulgate standards for each of the source

categories EPA has identified as significant sources of HAPs under §112(c)(1). As the largest and one of the first of the §112 MACT standards, the HON will undoubtedly serve as the prototype for future standards.

The wide variety of processes and emissions covered by the HON adds to its complexity. We encourage EPA to continue working to simplify the regulations so that they may be easily understood and applied to the SOCMII source category.

**1. The Rule Will Have An Enormous Impact**

The HON will reduce more emissions at a greater cost than any previous air toxics rule. Although CMA disagrees with the estimates used by EPA to establish SOCMII emissions and certain MACT levels above the statutory floor, one thing is clear: the HON will significantly impact the chemical industry. Controls meeting the MACT floor will reduce emissions substantially throughout the SOCMII source category. These requirements will also generate high compliance costs. The HON will be a large factor in the daily operations and business decisions of CMA member companies.

EPA has indicated that huge initial capital costs will be required to install control systems and monitoring equipment. CMA believes these estimates are at least two to four times too low. These initial costs will be followed by substantial annual maintenance and operating costs. In addition to these "control related" costs, the rule will require substantial "administrative" costs for monitoring, recordkeeping and reporting.

In some respects, the proposal limits compliance costs by eliminating unnecessary or repetitive reporting. CMA supports EPA in this effort. More progress

should be made toward focusing resources on measures which have a direct and cost-effective environmental benefit.

## 2. The Rule Must Be Both Understandable And Achievable

Even the most experienced environmental professionals are amazed at the complexity of the proposed HON. Some of this complexity is inevitable because the rule will regulate such a wide variety of emission sources within a diverse industry. Nonetheless, ultimately the HON must be understood and applied by sources and regulators with varying degrees of available training, knowledge, and resources. Therefore, it is essential that the rule be stated in the clearest terms possible.

CMA encourages EPA to make the HON "user friendly." EPA attempts this in part by centralizing most of the applicability and general requirements in one section, subpart F. Wherever possible, the rule should eliminate confusing or unnecessary provisions, take advantage of tables and flow diagrams, and group similar requirements. Where appropriate, CMA makes specific recommendations that will make the rule clearer and more easily understood.

The HON must not only be understandable, but it also must be achievable. CMA is concerned that EPA has based some requirements on models which do not represent real operations. CMA is also concerned that EPA has used average removal efficiencies to establish control levels that cannot be achieved for points below the average. The result is that costs, emissions benefits, and technical realities are sometimes not reflected in the rule. In certain instances, sources will find it impossible to meet the HON requirements

because of uncontrollable delay, prohibitive cost, or technical impossibility. EPA must correct these defects in the final rule.

**B. CERTAIN ASPECTS OF THE HON ARE CRITICAL**

All comments in the following submission deserve thoughtful consideration by EPA. However, some provisions are absolutely essential to the success of this rulemaking. Below, CMA outlines the issues which are critical to the validity of the HON. These issues are more fully developed in the main body of comments.

**1. Monitoring, Recordkeeping, And Reporting**

Monitoring, recordkeeping and reporting represents a very large portion of the total compliance costs of the rule, yet these provisions have no real environmental benefit. CMA recognizes that some degree of monitoring, recordkeeping, and reporting plays a legitimate role in documenting compliance with this standard. However, there is no rationale for verification or administrative requirements that are duplicative or unrelated to a control requirement. The proposal wisely limits some unnecessary provisions, but more revisions should be done before the rule is promulgated.

Advanced monitoring and recordkeeping techniques, such as "data compression", should be allowed under the rule. As drafted, the proposal discourages such devices. CMA strongly supports the inclusion of validated devices and methods in the HON.

## 2. Wastewater

As equally important as the monitoring, recordkeeping and reporting requirements in the HON, are CMA's concerns relating to the wastewater provisions of the proposed rule. CMA believes that the requirements for wastewater treatment are critical to the proper implementation of the HON by the regulated community and as such, must be based upon the soundest scientific technology currently available.

CMA believes that EPA has failed to support steam stripping as the reference control technology. EPA's cost and environmental impact analyses for steam stripping are inadequate, resulting in underestimated costs and overestimated benefits for the proposed rule. CMA strongly suggests that EPA consider designating additional technologies as reference control options. CMA is also concerned about provisions related to maintenance wastewater, cooling water, and discharges to publicly owned treatment works (POTWs).

## 3. Determination Of MACT

Maximum Achievable Control Technology (MACT) forms the basis for standards under Section 112(d) the CAA. Section 112(d) of the statute prescribes the method for determining the minimum MACT requirements, or the "floor". Under the HON, MACT is expressed in terms of the installation and operation of a reference control technology (RCT) with a defined control efficiency or equivalent.

EPA has done a defensible job of determining the floor for HON emission points, with certain exceptions as outlined in these comments. The rule properly divides emission points into two categories, Group One and Group Two -- this distinction is an



integral part of the floor construction and it is essential that it be retained. However, by focusing on emission points instead of sources, the method employed by EPA overstates the actual floor levels. EPA should account for this overstringency when establishing the prescribed MACT levels for the HON.

Costs and environmental benefits must be considered where EPA sets MACT above the floor. EPA has not adequately considered these factors, and has relied on flawed data. EPA must adjust the MACT levels to account for realistic cost and benefit estimates.

#### 4. Compliance

Compliance with environmental regulations is crucial to the reputation, operation, and financial well-being of any facility. Reasonable compliance provisions will strike a balance between the need to verify that the standard is met and the need to limit unproductive, unnecessary requirements. In allowing for a set number of excursions, EPA strikes a reasonable balance in the HON.

The rule appropriately provides that sources be allowed a percentage of excused deviation periods from daily average control device parameter values. This is necessary because numerous events can cause a control device to deviate from prescribed parameters despite the best efforts of an owner or operator. EPA also wisely recognizes that many facilities may have difficulty meeting the three year compliance date, and provides procedures for facilities to request a one year extension as allowed under the Act. These extensions should be readily available when needed to install control equipment.

## 5. Applicability

The "primary intended product" approach will aid applicability determinations. In a source category as large and diverse as the SOCM, EPA reasonably chooses to focus on what the individual chemical manufacturing process is meant to produce instead of by-products, co-products, and intermediates.

## 6. Interaction With Other Regulations

EPA should reconsider how the HON will interact with other existing and future CAA section 111 and 112 regulations. Overlap and inconsistencies will create frustration and confusion on the part of sources and regulators. Where appropriate, the HON should specify that the HON governs over these other regulations. EPA must delete all references to the General Provisions in the HON.

## 7. Emissions Averaging

CMA supports emissions averaging as an innovative compliance option. Averaging will be necessary for sources where it is impracticable to meet the referenced control. Some changes in the proposal, such as a quarterly emissions cap based on allowable emissions, will make averaging a viable alternative for sources.

# II. COMMENTS ON GENERALLY APPLICABLE REQUIREMENTS

## A. APPLICABILITY

### 1. EPA Has Discretion To List SOCM As A Single Source Category

On July 16, 1992, EPA published its Initial List of Categories of Sources under section 112(c)(1) of the CAA. 57 Fed. Reg. 31576 (July 16, 1992). In this initial

list, EPA identified the production of organic chemicals as a single source category. 57 Fed. Reg. at 31592. The proposed MACT standard for SOCM, the HON, continues this single-category definition.

Given the language of the statute and the legislative history, it is clear that EPA has discretion to designate SOCM as a single source category or as numerous source categories or subcategories consisting of different types of SOCM facilities. The proposed designation of SOCM as a single source category is accordingly well within the Agency's discretion.

**a. EPA Has Broad Discretion To Identify Source Categories**

Section 112(c) authorizes EPA to create a list of all categories and subcategories of major sources and area sources of hazardous air pollutants. The statute provides certain guidelines to EPA in identifying source categories and subcategories, the most pertinent of which for current purposes is the requirement that, to the extent practicable, the source categories identified by EPA be consistent with the lists of source categories established pursuant to section 111 and part C of the Act. CAA §112(c)(1). Within these parameters, EPA has broad discretion in establishing source categories. Cf., Chevron, USA, Inc. v. NRDC, 467 U.S. 837 (1984). (upholding EPA's broad discretion to define the term stationary source under section 111). The brief discussion of source categorization in the legislative history of section 112 supports this conclusion:

"The MACT provision in the bill gives the Administrator discretion in categorizing and subcategorizing facilities for regulation under subsection (d)." H.R. Rep. No. 490, 101st Cong., 2d Sess. 329 (1990).

"In establishing categories, the Administrator may take into account factors such as industrial or commercial category, facility size, type of process and other characteristics of

sources which are likely to affect the feasibility and effectiveness of air pollution control technology. Cost and feasibility are factors which may be considered by the Administrator when establishing an emissions limitation for a category under section 112. The proper definition of categories, in light of available pollution control technologies, will assure maximum protection of public health and the environment while minimizing costs imposed on the regulated community." S. Rep. No. 228, 101st Cong., 1st Sess. 166-67 (1989).

Listing SOCM I as a single source category is consistent with the statutory guidelines. The source categories regulated under section 111 and part C of the Act are very broadly defined. For example, EPA has applied new source review requirements under section 111 to approximately 70 source categories and subcategories, including entire industries (such as the rubber tire manufacturing industry). Similarly, EPA has applied the prevention of significant deterioration provisions of part C to 26 source categories, including broad categories such as petroleum refineries.

EPA's past treatment of SOCM I under section 111 also supports a broad source-category definition here. For example, new source performance standards (NSPS) established for SOCM I air oxidation units (40 C.F.R. Part 60, subpart III) do not attempt to subcategorize the industry; the standards apply equally to all SOCM I facilities. While the existing new source standards do specify different requirements for different emission-point types, this treatment is not inconsistent with the proposed HON, which would similarly establish specific standards for various emission-point types, albeit with somewhat greater flexibility.

Finally, elements of the legislative history of the CAA appear to contemplate the designation of chemical plants as a single source category:

"EPA is to establish a list of major source categories (chemical plants, oil refineries, steel plants, etc.) for the purpose of issuing standards." 136 Cong. Rec. S 16954 (daily ed. Oct. 27, 1990) (statement of Senator Chafee outlining basic elements of the Conference Agreement). The identical language is found in a summary of the House-Senate Conference Agreement submitted for the record by Senator Baucus. 136 Cong. Rec. S.18038 (daily ed. Oct. 24, 1990).

**b. Treating SOCM I As A Single Source Category Satisfies Congressional Intent And Achieves Emission Reductions Sooner Than Required**

By identifying the SOCM I as a single source category, EPA must promulgate a MACT standard applicable to the synthetic organic chemical industry as a whole. This approach could theoretically have caused MACT for the industry as a whole to be less stringent than separate MACT standards for different parts of chemical plants. However, because of the way EPA has elected to go about identifying the MACT floor, this clearly will not occur. In identifying the MACT floor for the HON, EPA has identified a separate "floor" element for each emission-point type and has aggregated the emissions reductions achieved by those technologies to calculate a single floor for the entire category. As discussed in section II.B.1. of these comments, using this additive approach to develop the MACT floor (using the best controlled process vents, storage tanks, etc.) has inevitably resulted in a MACT floor (and resulting standard) for the HON that is more stringent than would be developed by examining the total emissions from the best-controlled SOCM I plants. For purposes of setting the MACT floor, therefore, EPA has essentially treated

SOCMI as five source categories rather than one -- with a resulting substantial increase in the stringency of the floor calculated for the category as a whole.

Similarly, EPA's decision to aggregate SOCMI facilities producing different organic chemicals will not result in any significant reduction in stringency, because the technology used to control different types of volatile organics is similar. If anything, this approach is likely to increase the overall level of control required of the industry as a whole, due to the MACT floor requirement. The best-controlled 12 percent of the chemical industry will in most cases be identified with particular segments of the industry; if other segments were disaggregated into separate source categories, those categories would have less stringent floors.

Under the CAAA, EPA was directed to regulate 40 source categories or subcategories in the first round of MACT rulemaking. Section 112(e)(1)(A). In proposing a single MACT standard for the entire SOCMI and additional standards for equipment leaks for another seven source categories, EPA will as a technical matter fall short of this goal. However, as EPA points out in the preamble at p. 62610, the HON clearly complies with the intent of Congress under section 112(e)(1)(A), because Congress's principal concern in enacting this provision was to ensure the early regulation of certain parts of the organic chemical industry. See H. Conf. Rep. 952, 101st Cong., 2d Sess. 338 (1990) (suggesting that the first 40 source categories consist of priority portions of the HON "at the Administrator's discretion").

Indeed, establishing SOCMI as a single source category will result in greater emissions reductions, because more major sources will be regulated sooner. In EPA's

preliminary draft source-category list, SOCM I was split into over 400 different source categories. 56 Fed. Reg. 28548 (June 21, 1991). If EPA chose to follow this approach, fewer than 40 of these categories would have to be regulated at this time, and hazardous pollutant emissions from as much as 90 per cent of the industry could remain unregulated under section 112 in the first round. Instead, however, EPA has decided to regulate the entire SOCM I at the same time by treating it as a single source category. This decision will result in greater emissions reductions through the accelerated installation of pollution controls on the entire industry.

**c. EPA Retains Discretion To Subcategorize SOCM I For Other Purposes In Different Rulemakings**

The fact that EPA's initial list of source categories lists the SOCM I as a single source category does not preclude EPA from identifying subcategories within SOCM I (or breaking certain sources out into a separate category) either in this rulemaking or in a later rulemaking. See CAA Section 112(c)(1) (instructing EPA to revise the list of source categories from time to time, but no less often than every eight years). The proposed HON would treat SOCM I as a single source category for purposes of establishing MACT standards under §112(d). However, given EPA's broad discretion in identifying categories and subcategories of sources, EPA retains the authority to identify different categories or subcategories within SOCM I for other purposes.

For example, technology advances in the production of certain chemicals, or determinations of residual risk under section 112(f), will require further differentiation

among sources subject to the HON.<sup>1/</sup> Or the Agency may be presented with information that supports the creation of a separate category for purposes of delisting pursuant to section 112(c)(9) of the Act. Even if SOCM I remains a single source category for purposes of the HON, therefore, EPA will retain the authority to subdivide the SOCM I source category as appropriate in other contexts.

## 2. EPA Has Broad Discretion To Define Source As Appropriate

In the preamble to the proposed rule at p. 62647, EPA solicits comment on the definition of "source." The proposed HON does not contain an express definition of the term "source."<sup>2/</sup> However, the proposal incorporates a number of implicit definitions of the term, which vary from one context to another. While this variation is occasionally a source of confusion, it is far from unprecedented under the CAA and is both appropriate and necessary for the implementation of the statute.

It is well established that EPA has discretion to develop and implement multiple definitions of the term "source," depending upon the context in which the term is to be used. See, e.g., Chevron, U.S.A., Inc. v. NRDC, 467 U.S. 837 (1984); Alabama Power Co. v. Costle, 635 F.2d 323 (D.C. Cir. 1979). EPA regularly exercises this discretion in order to tailor particular regulatory requirements to the particular groupings of individual emission points to which they properly apply.

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<sup>1/</sup> Indeed, given currently available information, CMA anticipates that subcategorization will be necessary for purposes of section 112(f).

<sup>2/</sup> Nor, for that matter, does the statute define the term, although section 112(a) does include definitions of the terms "major source" and "stationary source."



The statutory provisions that are implicated in the proposed HON incorporate at least four meanings of "source": (1) a "source" in a "source category" under section 112(c) and (d); (2) a "source" under section 112(i) to which MACT standards are "applicable;" (3) a "new source," and (4) an individual emissions point.

The implications of these various meanings of "source" are addressed below in the sections of these comments dealing with the MACT floor and emissions averaging (II.A.B.2. and III.F.1.). As a general matter, it should be stressed that EPA is under no obligation to give the term the same meaning in all contexts. Instead, it has the discretion - and the obligation -- to define the term in each instance in a way that best carries out the policies and purposes of the Act.

### 3. EPA Should Revise The Definition Of "Plant Site"

The applicability provisions of the proposed HON specify that the HON applies to all SOCOMI operations "at a plant site that is a major source as defined in section 112(b) of the Act." Sections 63.100(b)(1)(i) and (ii). This applicability definition implements the statutory requirement that MACT standards apply to "major sources," which are defined under the statute as, in essence, plant sites (as that term is generally understood):

"any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants." Section 112(a) (emphasis added).

Despite this attempt at parallelism, however, there is an important mismatch in the statutory definition of "major source" and the proposed HON definition of "plant site." This mismatch requires a revision in the latter definition to ensure that EPA does not improperly impose "major source" requirements on sources that Congress did not intend to regulate as major sources.

The proposed definition of plant site includes:

"all contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way. Common ownership or control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof." Section 63.101

Most aspects of this proposed definition constitute appropriate interpretations and explanations of the statutory definition of "major source." However, the provision adds to the scope of the definition of "major source" by applying it to contiguous facilities that are under common ownership, even if they are not under common control. This is inconsistent with the statute, which refers only to common control.

There are numerous instances in which SOCFI plants lease contiguous facilities to third parties, which operate those facilities without any right of control by the lessor. While it is clearly appropriate to hold the lessee responsible for compliance at such a facility (regardless of the fact that it does not own the facility), the lessor cannot be obligated to guarantee compliance by the lessee absent control over its operations.

Nor, leaving aside compliance issues, is it appropriate for EPA to group together contiguous facilities that are commonly owned but not commonly controlled for

purposes of identifying those facilities as a "major" source. The statute plainly does not contemplate that major sources be artificially created based on common ownership that does not extend to common control. Instead, the statute clearly establishes that facilities are to be grouped together to constitute a major source only if they are (1) contiguous and (2) under common control. If both of these criteria are not met, the facilities simply are not part of the same major source, regardless of who technically owns them.

The application of the "plant site" definition to contiguous facilities owned or controlled by subsidiaries must also be revised. The term "subsidiary" does not have a fixed meaning and is on occasion applied to partially-owned entities over which the "parent" has no real control. CMA does not dispute that it is appropriate to extend the plant site definition to facilities that are controlled by a wholly-owned subsidiary (or, for that matter, a "sister" wholly-owned subsidiary of a common parent, although the proposed definition does not appear to include this situation). However, the definition should not include facilities owned by partially-owned subsidiaries that are not controlled by the parent. Nor, of course, should it apply to operations that are owned but not controlled by either the parent or the subsidiary.

The definition should accordingly be revised to read as follows:

"All contiguous or adjoining property that is under common control, including properties that are separated only by a road or other public right-of-way. Common control includes properties that are operated by the same entity, parent entity, majority-owned subsidiary, or any combination thereof."

4. The "Primary Intended Product" Approach Is Reasonable And Workable, But The Definition Of Product Needs To Be Modified

As noted by EPA in the preamble at p. 62623, applicability determinations under existing standards for the SOCM I have been difficult and confusing for sources and regulatory agencies. Our experience confirms EPA's conclusion. We agree with EPA that the difficulties have in large part been due to the inclusion of by-products, co-products, and intermediates as products in the definition of "to produce". Preamble at p. 62623. EPA has wisely adopted a different approach for the HON in subpart F.

Under subpart F, EPA proposes to base applicability "on the primary product that is produced by the process, or where there is no primary product, on the intended purpose of the process." Preamble at p. 62623. This approach is intended to avoid some of the difficulties of prior applicability determinations in other rules.

The primary intended product approach is reasonable and workable. The approach attempts to give clear, objective criteria for a highly diverse, complex, and integrated industry. By focusing on the primary intended product of a process, the rule will better distinguish between SOCM I HON sources and sources which will be subject to subsequent MACT standards, such as rubber and polymer, pharmaceutical, and pesticide production.

The primary intended product approach is clearly superior to alternative approaches that have been suggested or considered by EPA in the past. Its most obvious virtue is its simplicity, which allows it to be easily understood and readily applied. In the vast majority of cases, the primary product of a process will be obvious and will require little or no detailed or careful analysis by the source or by regulatory authorities. Thus, no

special testing or analysis will be required in order to determine whether or not a particular process unit is subject to the HON.

Perhaps more importantly, the primary intended product approach is the only reasonably available approach that offers the important benefit of exclusivity. Assuming that this approach is adopted for all MACT standards, every emissions point regulated under section 112 will be subject to one -- and only one -- MACT standard.<sup>3/</sup> Thus, under this approach, there will be no need for sources and regulatory authorities to struggle to choose in individual cases between two or more potentially applicable (and perhaps even conflicting) standards.

CMA believes that EPA should also add additional clarity to the primary intended product concept. The preamble language does not consistently match the language used in the definition of "product" in subpart F which states:

"Product means a compound or chemical which is manufactured as the intended product of the chemical manufacturing process. If a chemical manufacturing process produces more than one intended chemical product, the product with the greatest annual design capacity on a mass basis determines the product of the process. If a chemical..." (emphasis added) §63-101.

Current language in the preamble implies that the "mass basis" is the first determination when identifying the primary intended product. If no primary product can be determined on a mass basis, then the preamble implies that the intended purpose of the process would then be considered:

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<sup>3/</sup> This is because a process will in the vast majority of cases have only one primary intended product.



"...applicability will be based on the primary product that is produced by a process or, where there is no primary product, on the intended purpose of the process." Preamble, p. 62623.

The preamble language is inconsistent and does not clearly address situations where a by-product, co-product or intermediate stream may contain a larger mass volume than the primary intended product that is the "intended product" of the chemical manufacturing process. For example, in the production of polyvinyl alcohol, a greater quantity of acetic acid is produced on a mass basis than polyvinyl alcohol. The polyvinyl alcohol is the intended product and purpose of the chemical manufacturing process and is not listed as a HON process in section 63.105. The acetic acid is only a by-product of the polyvinyl alcohol process. CMA believes that the regulatory language in subpart F clearly states that the polyvinyl alcohol process is not subject to the HON rule. CMA believes that EPA could improve the consistency and understanding of the rule's applicability revising the preamble language on p. 62623 to read:

"Because of this confusion, a different approach to defining applicability of this rule was developed. For the HON, applicability will be based on the intended product that is the purpose of the chemical manufacturing process. If a chemical manufacturing process produces more than one intended chemical product, the product with the greatest annual design capacity on a mass basis determines the intended product of the process. By-products, co-products, and isolated intermediates will not be considered in determining applicability since these were considered in development of the list of chemical products."

Accordingly, CMA recommends the following clarifications to the definition of "product" in section 63.101:

"*Product* means a compound or chemical which is manufactured as the intended product or purpose of the

chemical manufacturing process. If a chemical manufacturing process produces more than one intended chemical product, the product with the greatest annual design capacity on a mass basis determines the product of the process. If a chemical manufacturing process has two or more products that have the same maximum annual design capacity on a mass basis and if only one of these chemicals is listed in Sec. 63.105 of this subpart or Sec. 63.184 of subpart H, then the listed chemical is considered to be the intended product. If more than one chemical is listed, then the owner or operator may designate as the intended product any of the listed chemicals. By-products, co-products, isolated intermediates, impurities and trace contaminants are not considered products.

It should be noted in this context that the primary intended product approach is not designed to exclude emission points from regulation under section 112 of the Act and will not have the effect of doing so. Instead, it provides a coherent and reasonable organizing principle for the classification of process units into the appropriate source categories. A process unit that is not subject to the HON because its primary intended product falls outside the HON (such as the polyvinyl and alcohol process) will not be excluded from regulation; rather, it will be regulated within the context of the source category (e.g., polymers and resins) into which it properly falls.

5. The HON Should Clarify The Applicability For Unit Operations

Section 63.100(b)(3)(iii) of the proposed rule discusses operations that produce one or more of the chemicals listed in section 63.105 that are also an integral part of a chemical manufacturing process. If the chemical manufacturing process does not produce one of the chemicals in §63.105 as its intended product, then the unit operation is not subject to the requirements of the subpart. In general, CMA supports EPA's decision

to exempt unit operations that fit this criteria because it keeps the chemical manufacturing process intact as a whole unit for the purposes of regulation. This helps to ensure uniform consistency with this and other MACT standards that are being developed. Exempting these integral unit operations does not imply that they will not be regulated. If appropriate, EPA will regulate the unit operation at the same time as the process in the proper source category. EPA's approach adds consistency and will ultimately result in regulations that can be applied in a logical manner increasing overall understanding and compliance with the MACT standards.

However, CMA is concerned that the concept of "integral unit operation" is not fully defined in the proposed rule by existing language, resulting in confusion on how to apply this principle. Also, the proposed language does not address several situations that occur in chemical plant operations that have integral production processes that consist of HON and non-HON processes.

Section 63.100(b)(3)(iii)(B) states "For a unit operation to be an integral part of a chemical manufacturing process, at least 90 per cent of the product stream from the unit operations must be used by the chemical manufacturing process". The requirement to use at least 90 per cent of the product stream in the same process appears to apply to situations where a process is purifying an incoming raw material.<sup>4/</sup> In many situations, the unit operations exist to recover or purify a HAP material that is used either as a solvent or carrier in a non-HON chemical manufacturing process, or the HAP is formed as a by-product, co-product or isolated intermediate due to a reaction step. These situations deal

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<sup>4/</sup> See the methyl methacrylate example, in the regulation, §63.100(b)(3)(iii) .



directly with a unit operation that exists in the middle or at the end of a chemical manufacturing process. In either case, the impure HAP stream is often purified to create a beneficial product that can be used within the same chemical manufacturing process that generated it, used in another on-site chemical manufacturing process that has a need for the purified product, or sold off-site as a useful product. CMA recommends that EPA delete the 90 per cent requirement by recognizing that a by-product or co-product can be beneficially used outside of the chemical manufacturing process that created the stream. A key point to help justify this recommendation is the fact that the unit operation is only a part of the overall chemical manufacturing process which is producing the "intended" product for the process. The unit operation is only a part of the operation that exists to recover (preventing destruction of the impure HAP stream) the substance in a beneficial manner. An additional example is suggested below in the recommended regulatory language that describes a polyethylene terephthalate process to help explain this concept.

The proposed regulatory language is also unclear on how to determine the applicability of unit operations that are often shared between two or more chemical manufacturing processes. To clarify this concern, CMA strongly urges EPA to adopt language similar to the requirements already included in §§63.100(b)(4) and (5) that address this concern for shared storage vessels and transfer racks. There, EPA appropriately identifies the shared storage vessels and transfer rack with the chemical manufacturing process that is associated on a "predominant use" basis. This approach correctly ties the unit operation to the chemical manufacturing process most closely associated to the "need" for the unit.

In general, the chemical manufacturing process that provides the greatest amount of material (mass basis) into the unit operation would have the predominant use. In situations where the majority of the material is supplied to a unit operation by a chemical manufacturing process that is not located on the same plant site, then the chemical manufacturing process on-site that receives the greatest amount of material would determine the predominant use of the unit operation. In Appendix A, CMA provides examples of how the proposed approach would work.

The following suggested language changes are intended to minimize the uncertainties in the existing proposed language. CMA believes that the applicability for unit operations under this approach would be easier to understand and to apply in practice on a consistent basis.

Section 63.100(b)(3) should be revised as follows:

§63.100(b)(3)

(iii) If one or more of the chemicals listed in Sec. 63.105 of this subpart or Sec. 63.184 of subpart H is produced by a unit operation that is an integral part of a chemical manufacturing process that does not produce one of the chemicals in Sec. 63.105 or Section 63.184 as its intended product, then the unit operation is not subject to this subpart. For example, if a distillation column is used to produce purified methyl methacrylate by removing an inhibitor, but the distillation column is part of the process to manufacture methyl methacrylate acrylonitrilebutadiene-styrene (MABS) resins, then the distillation column is considered part of the resins process and is not subject to this subpart. Also, if a polymer process produces polyethylene terephthalate (PET) as the product of the chemical manufacturing process, but it also generates an impure methanol stream that is purified by an unit operation that is integral to the PET process, then that unit operation would be considered part of the polymers process and is not subject to this subpart.

(A) A unit operation is one or more pieces of process equipment used to make a single change to the physical or chemical characteristics of one or more process streams. Unit operations include reactors, distillation columns, extraction columns, decanters, compressors, condensers, boilers, and filtration equipment. A chemical manufacturing process may consist of multiple unit operations.

(B) For a unit operation to be an integral part of a chemical manufacturing process, it must be directly associated with the operations of that chemical manufacturing process at the same plant site.

(c) If a unit operation is not dedicated to a single chemical manufacturing process, then the applicability of subparts F, and H shall be determined according to the provisions in paragraphs (b)(3)(B)(1) through (b)(3)(B)(4) of this section.

(1) If a unit operation is shared among chemical manufacturing processes and one of the processes has the predominant use of the unit operation as described in paragraphs (b)(3)(B)(1)(i) and (b)(3)(B)(1)(ii) of this section, then the unit operation is part of that chemical manufacturing process.

(i) If the greatest input into the unit operation is from a chemical manufacturing process located on the same plant site, then that chemical manufacturing process has the predominant use.

(ii) If the greatest input into the unit operation is provided from a process that is not located on the same plant site, then the predominant use is the process located at the same plant site that receives the greatest amount of material from the unit operation.

(2) If a unit operation is shared among chemical manufacturing processes so that there is no single predominant use, as described in paragraph (b)(3)(B)(1) of this section, and at least one of those chemical manufacturing processes is subject to this subpart, the unit operation shall be considered to be part of the chemical manufacturing process that is subject to this subpart. If more than one chemical manufacturing process is subject to this subpart, the owner or operator may assign the unit operation to any of the chemical manufacturing processes subject to this subpart.

(3) If predominant use of a *unit operation* varies from year to year, then the applicability of this subpart shall be determined based on the utilization (*mass basis*) that occurred during the year preceding promulgation of this subpart. This determination shall be included in the Implementation Plan required by Sec. 63.151 (c), (d), and (e) of subpart G or as part of an operating permit application.

(4) If there is a change in the *type of* material processed in the *unit operation*, the owner or operator shall reevaluate the applicability of this subpart to the *unit*.

The following language should be added to the preamble on p. 62626 prior to the examples already included in the left-hand column:

In many situations, the chemical manufacturing process will consist of one or more unit operations that are one or more pieces of equipment that are intended to make a physical or chemical change to the characteristics of one or more process streams. Unit operations include reactors, distillation columns, extraction columns, decanters, compressors, condensers, boilers, and filtration equipment. A unit operation is an integral part of the chemical manufacturing process if it is directly associated with the operations of that chemical manufacturing process at the same plant site. If one or more of the chemicals listed in Sec. 63.105 of subpart F or Sec. 63.184 of subpart H is produced by a unit operation that is an integral part of a chemical manufacturing process that does not produce one of the chemicals in Sec. 63.105 or Section 63.184 as its intended product, then the unit operation is not subject to this subpart. Section 63.100(b)(iii) of subpart F provides language that addresses unit operations. This section also provides language that determines the applicability of a unit operation that is shared with one or more chemical manufacturing processes. The following diagrams provide additional examples that help to explain EPA's intent for the referenced regulatory text: (See Appendix A of these comments for diagrams.)

**6. The Rule Should Better Distinguish Between Major And Area Sources**

The rule is intended to apply only to major sources. (see preamble at pp. 62610, 62623). CMA agrees. Before a MACT standard can be proposed for area sources, section 112(c)(1) of the Act requires EPA to list such area sources pursuant to §112(c)(3). EPA has not listed any area sources to be subject to the HON.

However, CMA is concerned that area sources will nonetheless be subject to HON requirements. First, the restrictive interpretation of "potential to emit, considering controls" in the definition of major source will unnecessarily bring certain area sources under the rule. Second, the rule imposes negative demonstration and reporting requirements on area sources in subpart G. Section 63.151(b)(1)(vi). We recommend that EPA adopt a more reasonable interpretation of "potential to emit, considering controls", and delete the reporting requirement for area sources.

**a. All Limitations Should Be Considered In A Source's "Potential To Emit"**

Section 63.100(b)(1)(i) indicates that subparts F and G apply to SOCM processes that are "located at a plant site that is a major source as defined under section 112(b) of the Act."<sup>5/</sup> "Major source" is defined in section 112(a) of the Act as a single or group of stationary sources that has the potential to emit, considering controls, more than ten tons per year of any HAP or more than 25 tons per year of total HAP. Thus, a source's "potential to emit, considering controls" is critical to determining whether the HON applies. CMA is concerned that the Agency interprets "potential to emit" too narrowly for the

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<sup>5/</sup> CMA notes that this is probably a typographical error -- the definition is found in section 112(a).

purposes of this rule. The statute plainly allows a broader definition, which takes into account the source's actual potential to emit given all the constraints to which the source is subject.

EPA proposes in the preamble at p. 62626 to adopt the same definition as used under the New Source Review (NSR) program. The NSR regulations define "potential to emit" as follows:

(4) Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operations or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source. 40 CFR §52.21(b)(4) (emphasis added).

The requirement that all limitations must be federally enforceable may significantly restrict what controls may be accounted for in determining "potential to emit". Sources are subject to various state and local limitations that may not be directly enforceable by the Administrator. For example, one CMA company is controlling emissions from three styrene product tanks and from styrene product loading to ensure that modeled fenceline impacts do not exceed "effects screening levels" set by the Texas Air Control Board (TACB). (During permitting, the TACB conducts a health effects assessment in addition to a technology review of proposed emission controls.) In this case, additional control requirements were included in the facility's construction permit because predicted fenceline impacts exceeded the "effects screening levels."

In another example, a CMA member company facility has a 1989 construction permit for an incinerator treating non-hazardous process residue. The permit includes a particulate matter standard of 0.03 grains per dry standard cubic foot, which is more stringent than the state standard or the Federal standard for hazardous waste incinerators.

It is not clear whether EPA would consider these examples to be federally enforceable. However, these limitations are just as real as those required directly under the federal programs. If, under the proposed approach, they go unconsidered, the result would be that sources that maintain their emissions less than the major source threshold would unnecessarily become subject to a rule that is intended for major sources.

EPA should reconsider the "federally enforceable" criteria and opt for a broader interpretation as envisioned under the statute. The plain language of CAA section 112(a)(1) makes no mention of federal enforceability. Instead, the statute defines major source as a source "that emits, or has the potential to emit considering controls" ten tons per year individually or 25 tons combined of any HAP. This language places no restrictions on what controls must be considered.

If EPA retains a restrictive interpretation of "potential to emit, considering controls", then the rule should at least clearly state that all controls imposed under any program approved by EPA are to be considered in the calculation. This should include any requirement issued under a State Implementation Plan (SIP), an EPA approved permit program, Resource Conservation and Recovery Act (RCRA) or Clean Water Act (CWA) requirements, or any pollution prevention program recognized by EPA.

We recommend the Agency adopt a literal interpretation of the definition of "major source". We believe such an approach is good policy. It will recognize limitations that exist in reality, regardless of their regulatory origin. There is no policy justification for defining a source as a major source based on a theoretical potential to emit that will clearly not be fulfilled. Second, it will encourage voluntary reductions, as facilities will have incentive to reduce and thus avoid major source designation. Requiring such reductions to be codified in federally enforceable requirements before they "count" will impose bureaucratic burdens and delays that will seriously impede the effectiveness of this rule. Finally, there is no danger under such a definition that truly major sources would not be subject to the HON MACT standard -- if an area source removes controls and exceeds the major source threshold, then the HON automatically applies.

**b. Fugitive Emissions Should Not Be Considered in Determining a Source's "Potential to Emit" If No Adequate Method Exists To Quantify Them**

EPA has stated that no adequate method exists for quantifying fugitive emissions. Preamble at p. 62647. To the extent that this is true, it logically follows that fugitive emissions are not appropriately included in calculating a source's "potential to emit" for purposes of determining applicability. CMA therefore urges EPA to clarify that in determining whether it is a major source, a source need not include fugitive emissions in the calculation of its potential to emit.

**c. The Negative Declaration For Area Sources Should Be Deleted**

Even though §63.100(b)(1)(i) of subpart F says the HON applies exclusively to major sources, subpart G contains requirements for area sources. Specifically, under



§63.151(b)(1)(vi), the owner or operator of a source not subject to the HON because it is not a major source must still submit an Initial Notification with "an analysis demonstrating that the source is an area source."

We object to this area source demonstration. The requirement for a negative declaration is unreasonable and conflicts with the applicability criteria of the rule. CMA recommends that §63.151(b)(1)(vi) be deleted from the rule.

The demonstration is unreasonable because on its face it would encompass every SOCM source, no matter how insignificant. Requiring all such sources to prepare and file a negative declaration that the rule does not apply places an unwarranted burden with little or no regulatory benefit.

Moreover, the demonstration requirement conflicts with the applicability provisions of the rule. Section 63.100 of subpart F and the preamble at pp. 63610 and 62623 clearly state that the HON applies to major sources. Reading this, the owner or operator of an area source would reasonably assume that the rule did not apply. However, the reporting provisions at the end of the rule do in fact impose requirements on these sources. This dichotomy is likely to lead to significant unintended and environmentally irrelevant noncompliance by area sources. CMA believes the provisions for area sources should be dropped from subpart G.

In the event that EPA still believes that a source must declare that it is an area source (not subject to the HON), then CMA recommends that only a simple statement be included in the Initial Notification to that effect, rather than the full demonstration required by §63.151(b)(1)(vi). Most facilities that will qualify as area sources will by the

nature of such facilities be quite small, with limited staff. The burden on a small facility would be greatly reduced if only a simple one line statement that the facility is an area source is required instead of a full demonstration. If EPA determines that a declaration by area sources is necessary, we suggest that 63.151(b)(1)(vi) be revised by inserting "a statement" in place of "an analysis demonstrating."

#### 7. The HON Must Deal Definitively With Overlapping Requirements

As previously observed in these comments, the HON is the most comprehensive air toxics regulation ever proposed. The comprehensive nature of this rule will inevitably lead to overlap with other existing and future rules. We believe EPA has not adequately considered how the HON will fit into the overall regulatory scheme.

CMA is concerned that the overlap between the HON and other regulations will lead to confusion, uncertainty, and frustration for sources and regulators. Sources may ultimately find themselves subject to multiple inconsistent standards for the same process. Examples of potentially overlapping rules, both existing and future, include NSPS, existing NESHAPs, enhanced monitoring requirements, and the General Provisions to part 63.

CMA recommends that EPA include in the HON a comprehensive statement of what requirements apply to HON sources. The HON would then serve to override all other applicable rules. We believe this effort is necessary to reduce confusion and maintain consistent application of the standard. CMA also recommends that EPA eliminate the apparent internal overlaps within the HON standard itself. For instance, closed vent systems are addressed under both subparts G and H.

Further, CMA notes that EPA should not reference requirements in the unproposed General Provisions to Part 63 in the HON proposal. EPA must either have promulgated the General Provisions prior to the HON proposal or proposed both rules concurrently for comment. Because EPA chose to propose the HON prior to promulgating the General Provisions, the Agency must delete all references to the General Provisions in the HON.

**a. The HON Should Override Other Overlapping Or Inconsistent Requirements**

CMA believes that EPA's remedy for dealing with overlapping regulations is unclear and inadequate. The proposed approach is found in section 63.103, entitled "General compliance, reporting, and recordkeeping provisions":

(d)(2) If the same emission point is subject to the provisions of subpart G or H and also to another applicable subpart of 40 CFR parts 60, 61, or 63, the owner or operator shall meet the most stringent standards applicable to the emission point. The records kept and reports submitted under the most stringent standard shall be sufficient to verify compliance with all applicable subparts. Duplicative recordkeeping and reporting of the same information under multiple subparts shall not be required. Section 63.103(d)(2).

It is unclear to CMA whether the "most stringent standards" test applies to overlapping control requirements or merely to recordkeeping and reporting requirements. Read alone, the "most stringent standards" sentence appears to apply to all standards, substantive and administrative. However, read in the context of the section, the sentence may be considered to apply only to overlapping recordkeeping and reporting requirements.

If EPA's intent is to make the "most stringent standards" test apply to all requirements, CMA believes the test is inadequate. This test may be intended to take account of section 112(d)(7) of the Act, which prohibits dilution of other Clean Air Act requirements. However, the appropriate approach is for EPA to specify in the HON the specific requirements from other rules that do and do not continue to apply to SOCOMI sources. Sources and regulators will be forced to make independent decisions of what regulations might apply and which are the "most stringent". This approach will lead to confusion and frustration for sources and regulators, and inconsistent applications of requirements.

Confusion and frustration will result because many of the potentially overlapping requirements do not lend themselves to stringency determinations. This provision is also inconsistent with §63.160(d) which states that subpart H applies regardless of stringency.

The rule should resolve this problem by listing in subpart F those subparts of 40 CFR parts 60, 61, and 63 which still apply to HON sources in addition to part 63, subparts F, G, and H. The list should be accompanied by a statement that all other overlapping requirements are superseded by subparts F, G, and H of Part 63. Except for the General Provisions (discussed below), the determination should be made on a subpart by subpart basis and should consider at a minimum the following existing NESHAP and NSPS regulations:

**Part 61 - EXISTING NESHAP REGULATIONS**

Subpart A	General Provisions
Subpart F	Vinyl Chloride
Subpart J	Benzene

Subpart V	Equipment Leaks
Subpart Y	Benzene Storage
Subpart BB	Benzene Transfer
Subpart FF	Benzene Wastewater

***Part 60 - EXISTING NSPS REGULATIONS***

Subpart A	General Provisions
Subpart K	Petroleum Storage Vessels
Subpart Ka	Petroleum Storage Vessels
Subpart Kb	VOL Storage Vessels
Subpart VV	Equipment Leaks
Subpart III	SOCMI Air Oxidation Processes
Subpart NNN	SOCMI Distillation Operations
Subpart RRR	SOCMI Reactor Processes (Proposed 6/29/90, Final is pending).

CMA supports the comments of the Vinyl Institute with respect to the Vinyl Chloride NESHAP (40 C.F.R. part 61, subpart F).

Such a statement that subparts F, G, and H of Part 63 supersede other subparts is needed not only to address the question of stringency between overlapping requirements but also to reduce the administrative and economic burden imposed by complying with two separate, but duplicative, sets of requirements. In the example described above, a facility may have 20,000 components subject to fugitive emissions monitoring under NSPS, subpart VV, but only 15,000 are in Volatile Organic Hazardous Air Pollutant (VHAP) service and subject to subpart H of the HON. Superimposing subpart H on only the VHAP service components will result in operating two different fugitive emissions programs in one plant. To simplify the facility's administrative burden and to reduce compliance costs, the facility should be allowed to apply the subpart H program to all components in a fugitive emissions monitoring program. An explicit statement in the

HON that subpart H overrides subpart VV would enable facilities to apply subpart H to all sources.

We believe an exclusionary list of what subparts apply to HON sources will greatly help implementation of the standard. As EPA points out in the preamble at p. 62610, the HON is intended to "provide comprehensive coverage of the SOCMI by regulating the organic HAP emissions from five kinds of emission points at each affected SOCMI source." As a "comprehensive" standard, the HON should be carefully designed to include all applicable requirements in a single location so that sources are able to determine quickly and easily what is expected of them.

Also, the override comports with the Act. Under CAA section 112(q)(1), the Administrator is to review and revise preexisting NESHAP standards to comply with the requirements of section 112(d). Existing standards are to remain in effect until that time. It follows logically from this statutory structure that Congress intended the old NESHAPs to remain in effect only pending the development of more tailored standards for individual source categories. To the extent existing NESHAPs apply to SOCMI sources, therefore, the relevant portions should be included within the HON (with appropriate adjustments), which should then be treated as superseding the old standards for the SOCMI source category. We believe this provision gives the Administrator the authority to override old section 112 standards with new standards that meet the requirements of new section 112(d).

**b. The HON Must Either Govern Over All General Provisions Or The HON Comment Period Must Be Reopened When The General Provisions To Part 63 Are Proposed**

CMA believes that the cross-references to 40 C.F.R. Part 63 (the "General Provisions") will cause the HON to violate the Administrative Procedure Act (APA). EPA has not yet proposed the General Provisions, which are meant to contain requirements generally applicable to sources subject to Part 63 standards. They contain compliance, testing, recordkeeping and reporting requirements that are critical to sources affected by the HON. We believe that if the General Provisions are not both formally proposed and promulgated prior to, or concurrent with, the proposal of the HON, then EPA may not include cross-references to the General Provisions in the HON. Therefore, CMA reserves the right to comment on any cross-referenced provisions once the General Provisions are promulgated.

The fact that the HON contains cross-references to unpromulgated regulations causes the HON to violate the APA because the HON fails to provide sufficient detail and rationale to permit interested persons to comment meaningfully. See, Fertilizer Institute v. EPA, 935 F.2d 1303, 1311 (D.C. Cir. 1991). The cross-references also appear to violate the requirements of 1 C.F.R. §21.21(a), which prohibits ambiguous references, and 40 C.F.R. §51.1, which governs how materials are incorporated by reference into federal regulations.

The best way for EPA to overcome this administrative defect would be to delete the cross-references to the General Provisions from the HON. The requirements of the HON would then be deemed to supersede all unpromulgated General Provisions.

The cross-references may be added at a later date, after the General Provisions are promulgated. However, this could be accomplished only after a separate notice and comment rulemaking, or a reopening of the HON comment period. See 5 U.S.C. section 553 (APA informal rulemaking notice and comment); Action on Smoking and Health v. Civil Aeronautics Board, 713 F.2d 795, 800 (D.C. Cir. 1983) (if one rulemaking is culminated and another is begun, new notice and comment procedures are required).

CMA appreciates the administrative difficulties caused by the unusual timing of these regulations. We believe that it is in the best interests of all parties affected by the HON -- both regulators and the regulated community -- to have the requirements of the HON govern over the unproposed General Provisions. We encourage the Agency to resolve these difficulties as soon as possible.

**c. EPA Should Allow Vents From Product Accumulators, Compressors, and Sample Systems To Be Subject to Requirements Either in Subpart G Or Subpart H**

Under the proposed rule, product accumulators, compressors, and sample systems are subject to subpart H requirements requiring a closed vent system vented to a control device. (For compressors, subpart H also allows compliance through installation and operation of a seal system.) When these emission points are vented to a control device, they become process vents similar to those regulated under subpart G. EPA has recognized this for product accumulator vents in section 63.110(c)(2) by stating that "emissions from product accumulator vessels are considered to be process vents or equipment leaks." In §63.100(c)(3), the rule further provides that:

"The equipment leaks standards in subpart H of this part shall not apply to a product accumulator vessel if the vent



from the product accumulator vessel is in compliance with the provisions for process vents in subpart G of this part."

CMA interprets these provisions as allowing facilities to choose whether to apply either the process vent requirements in subpart G to product accumulator vents or the product accumulator requirements in subpart H. CMA supports this approach because it provides flexibility to facilities to comply with either standard.

**8. The List of Synthetic Organic Chemical Manufacturing Industry Chemicals Contains Incorrect CAS Numbers**

Section 63.105 of the proposed rule contains a list of synthetic organic chemical manufacturing industry chemicals by chemical name and CAS number. CMA has reviewed this list and has identified at least 11 chemicals that have an incorrect number listed. For example, the CAS number indicated for Doclecycl phenol (branched) in the proposed rule is OD13. CMA believes the correct CAS number is 74499-35-7. CMA recommends that EPA review and make corrections to the list of chemical CAS numbers, as necessary, in the final rule.

**B. DETERMINATION OF THE MACT STANDARD**

**1. In General, EPA Employs A Reasonable Method For Estimating The Source-Wide MACT Floor, But EPA Should Recognize That Its Approach Raises the Stringency Of The Proposed Floor**

One of the subjects on which EPA has sought comment is the methodology to be used in identifying the MACT "floor." The methodology that EPA proposes to use in identifying the floor for the HON is different from that contemplated by the statute, primarily because EPA lacks the data necessary to perform a direct calculation of the floor. EPA has instead proposed to use a series of proxy measures for estimating what the floor

would be if it could be calculated directly. This methodology leads to the identification of a floor that is substantially more stringent than the "real" floor that would be calculated if the necessary data were available.

If EPA uses the proposed methodology in promulgating the final rule, the excessive stringency of the result may not by itself invalidate the final rule, given EPA's discretion to set MACT at a level more stringent than the floor. However, in establishing the final standard EPA must take into account the conservative nature of this floor determination, in order to ensure that the Agency takes proper account of the statutory factors governing the determination of MACT. In particular, in considering whether to impose a final standard that is more stringent than the estimated floor, EPA must take into account that its assumed floor is already more stringent than the "real" floor as contemplated in the statute.

Under section 112(d)(3)(A) of the Act, MACT standards for existing sources in a large source category such as SO<sub>2</sub> must require a "degree of reduction" that is no less stringent than "the average emission limitation achieved by the best performing 12 per cent of the existing sources (for which the Administrator has emissions information) . . . ." It is important to recognize that the MACT floor, like the MACT requirement itself, is to be measured on the basis of the "degree of reduction" achieved by "sources in the category." Section 112(d)(2). It is sources that are required to comply with MACT, not emissions points within sources. Thus, the MACT floor in turn must be measured based on the degree of reduction, i.e., level of control, achieved overall by the best 12 per cent of sources in the category.

Although EPA has "emissions information" for some SOCMCI sources, it has apparently reached the judgment that this information is not sufficiently complete to permit the identification of the "best controlled" SOCMCI sources or the "degree of reduction" that those sources have achieved. EPA has therefore proposed to adopt a proxy measure of the MACT floor that identifies what EPA believes to be the best levels of control that are generally applicable to the five basic types of emission points within the SOCMCI source category. These "best" levels of control for emission-point types are based on controls that are required, under currently existing state and federal regulations, for at least 12 per cent of all SOCMCI sources. The sum of these "floors" for each of the emission-point types is then assumed to be the floor for the category as a whole -- and therefore the MACT floor for the HON.

CMA agrees that, in the absence of actual data on emissions from sources in the source category, this "additive" approach is permissible for vents, tanks, and transfer operations. However, it must be recognized that this approach inevitably overstates the stringency of the MACT floor. EPA's proposed methodology would approximate the actual floor closely only if the "best-controlled" 12 per cent of the five emission-point types were all located at the same sources. In fact, however, they are not: although there may be some overlap, the 12 per cent best-controlled sources for process vents are not, for example, the 12 per cent best-controlled sources for storage tanks or for transfer operations.

Accordingly, as Table 1 illustrates, EPA's proposed methodology tends to overstate the stringency of the floor. CMA believes that the degree of this overstatement for the HON is substantial. In considering whether and to what degree to select a final

**TABLE 1 - COMPARISON OF MACT FLOOR STRINGENCY USING DIFFERENT APPROACHES**

**Emissions By Emission Point Type (Mg/yr)**

<b>Plant</b>	<b>Vents</b>	<b>Transfer</b>	<b>Storage</b>	<b>Wastewater</b>	<b>Leaks</b>	<b>Total</b>
1	20	5	5	4	2	36
2	30	3	10	9	6	58
3	18	4	4	3	2	31
4	15	6	6	4	3	34
5	20	5	4	2	4	35
6	19	5	2	10	5	41
7	15	6	3	7	3	34
8	15	6	5	4	2	32
Floor based on top 12% for entire plant (Plant #3)	18	4	4	3	2	31
Floor based on top 12% for each element	15	3	2	2	2	24

MACT standard that is more stringent than the floor, therefore, EPA must take into account the fact that the estimated floor is already significantly more stringent than the actual floor for this source category.

2. **EPA Improperly Defines The MACT Floor Element For Existing Storage Tanks**

As discussed in section III.C.2., EPA has incorrectly defined the MACT floor element for existing storage tanks by specifying 98 per cent efficient control. CMA recommends that EPA reevaluate the MACT floor element for existing storage tanks.

3. **The Group 1 And Group 2 Distinction Is An Appropriate Component Of The MACT Floor**

EPA's characterization of the MACT floor properly takes into account both the number and types of emission points to be controlled, the points to be controlled, and the methods used to control those points. This approach is correct because, as discussed above, MACT (and the MACT floor) is a requirement that applies to a "degree of reduction" by "sources in a category." The overall degree of reduction achieved today in practice by the best 12 per cent of SOCOMI sources is accomplished through the control of a variety of emission points through a variety of methods. A standard that mirrors the average level of control achieved by those sources must therefore itself identify two basic elements: (1) the emission points to be controlled and (2) the methods to be used to control those points. Thus, the designation of Group 2 emission points based on the MACT floor is not a de minimis exemption from the standard; it is an inherent part of the standard itself.

Section 112(d) is not properly interpreted as requiring all emission points within a source to be controlled. Such an interpretation is entirely inconsistent with the

floor definition's focus on the "degree of reduction" that is actually "achieved" by the best-controlled sources in the category. CMA feels confident in stating unequivocally that no source in the SOCMCI category -- including the very best controlled source in the category - today controls 100 per cent of its emission points. Instead, as EPA has stated, the best controlled SOCMCI sources tend to have controls on the emission points with the most significant emissions. Clearly, the types of controls and source types the EPA used in the determination of the floor do not require controls on all emission points.

In a typical chemical manufacturing unit, only those vents with HAP emissions in sufficient concentration or flow rate are controlled. For instance, under current practice for NSPS, not all emission points are controlled, and the NSPS for Air Oxidation Units excludes vents based on low flow rate and low concentration. 40 C.F.R. Part 60, subpart III.

The HON appropriately incorporates those criteria such as concentration, flow, and temperature (or tank size and volatility of stored material for storage tanks) which are inherent in the MACT floor determination. This approach attempts to characterize the floor so that it most closely reflects the degree of reduction achieved in the best controlled SOCMCI sources. CMA supports the inclusion of these values as factors to make the Group 1/Group 2 distinction a mandatory part of the HON. Failure to incorporate this distinction would require an entirely new analysis of the HON standard.<sup>6/</sup> A failure to take these

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<sup>6/</sup> It is worth noting in this respect that the statute itself does not necessarily require MACT to focus on the largest emission points (although this has sensibly been EPA's general approach in developing the HON). Indeed, §112(d) is entirely silent on the question of how emission points within a source are to be addressed. Instead, the statute only requires MACT to achieve an overall level of reduction for the "source" consistent with the

factors into account would require EPA to conduct a completely new and different analysis of the floor.

In early discussions on the HON, a suggestion was made that all emission points within a source would have to be controlled with reference controls once those controls were identified. This suggestion, which finds no support in (and is implicitly contradicted by) the statute itself, is apparently based primarily on an isolated statement by one Senator disapproving of de minimis exemptions under section 112. See 136 Cong. Rec. S16929 (daily ed. October 27, 1990) (statement by Senator Durenberger). However, that statement is not directly germane to EPA's proposed approach, which follows the statutory directive in identifying the MACT floor based on controls that are actually in place in SO2MI facilities today. The Group 2 distinction is an essential part of the MACT floor.

Even if it were considered to be directly on point, Senator Durenberger's statement would not preclude the approach EPA proposes to adopt here. The statement at issue is not "legislative history" as that term is normally used; it is instead a commentary on an EPA paper suggesting possible implementation strategies, accompanied by the Senator's expression of preference about which strategies should be selected. Moreover, even if the statement were intended to be legislative history, it would not be authoritative or binding in this context; the statements of an individual legislator, unsupported by the language of either the Conference Report or the statute, simply do not warrant that level of

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overall level of reduction constituting the floor. As a result, any combination of controls and emission points selected for control that achieves that level of reduction is consistent with the statute. It is for this reason that EPA's proposal for emissions averaging under the HON is supported -- if not compelled -- by the statutory scheme. This point is addressed further elsewhere in section III.F. of these comments.

deference. That is particularly the case where, as here, there was substantial disagreement about many of the interpretations put forward by individual legislators during final consideration of the bill. See 136 Cong. Rec. E3714 (daily ed. November 2, 1990) (statement by Congressman Dingell).

EPA is correct to identify the MACT floor based on the identification control technologies and emission-point groups ("Group 1") to which those technologies are applied. CMA believes the approach is a sensible one and fully in keeping with the statutory scheme.

4. **EPA Does Not Justify Establishing A MACT Standard More Stringent Than The Proposed Floor**

EPA inappropriately proposes MACT standards that exceed the legally required minimum level of stringency. The required level of stringency, or the "floor", is determined according to the criteria laid out in section 112(d)(3). The criteria for setting the floor does not include the consideration of cost relative to the degree of emissions reductions achieved. However, under section 112(d)(2), the cost of emission reduction must be considered in order for MACT to exceed the statutory floor. In the HON rulemaking record, EPA fails to adequately evaluate the costs of emission reductions achieved beyond the MACT floor. We believe a more accurate analysis shows that there is no justification for exceeding the MACT floor, particularly where, as here, EPA's estimate of the floor is already more stringent than the actual floor. Areas where EPA did not justify exceeding the floor include requirements for vents, storage tanks, and wastewater.



**a. The Agency Must Examine Costs And Emissions Benefits**

EPA has failed to meet its statutory obligation to consider costs when setting a MACT standard above the "floor." Clean Air Act section 112(d)(2) directs the Administrator to set standards that require the maximum reductions achievable "taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements ...". EPA's analysis of these factors is incomplete and is based on inaccurate assumptions.

**b. The Model Plant Approach Is Oversimplified And Leads To Inaccurate Estimates**

The estimates relied on by EPA in the Background Information Document BID were developed using a model plant approach (BID Volume 1C). CMA believes EPA's model plant is oversimplified and leads to inaccurate emissions and cost estimates. The simplistic model referenced in the BID is built on various inaccurate assumptions which should be revised.

One significant error in EPA's model plant is the assumption that all process vent streams from a manufacturing unit are centrally collected and routed to a single control device. This assumption is unrealistic. Facilities frequently do not manifold vent streams for a variety of reasons: mixed streams may create serious safety concerns; vent proximity or energy requirements may make central collection impractical; or various streams may be incompatible with the design of the control device.

EPA also assumes in the BID that wastewater streams are collected on a facility-wide basis for stream stripping. This ignores the fact that mixing wastewater

streams often makes recycling impossible. In addition, the model neglects to account for streams that are stripped at the process unit.

The model assumes that stripped volatile organic compounds (VOC) from wastewater streams is burned in an auxiliary incinerator. The heat is taken as fuel savings. However, EPA fails to consider the high costs associated with incineration under Resource Conservation and Recovery Act (RCRA) regulations may make this difficult or very costly.

EPA must account for the fact that the model plant approach seriously underestimates the cost and impact of compliance. We believe there is no credible evidence in the rulemaking record to justify exceeding the statutory floor for any MACT standard proposed in the HON.

**c. EPA's Baseline Emission Estimates Are Overstated**

CMA believes that EPA's model plant approach grossly exaggerates the baseline emission estimates in the HON. Based on a model plant analysis, EPA estimates that SOCFI units emit 597,000 Mg/yr. From this, EPA predicts that HON controls will reduce total emissions by 475,000 Mg/yr. There is a wide discrepancy between these emission estimates and EPA's own data under the Superfund Amendments and Reauthorization Act (SARA) 313 reporting program.

The SARA 313 data shows "actual" baseline emissions of HAP's as 61,217 Mg/yr for 1990, or about 10 times less than EPA's estimate based on model plants. Data for 1989 and 1988 are 69,835 Mg/yr and 69,350 Mg/yr respectively. The SARA 313 data base used by CMA for this comparison was the national 1990 reported Toxics Release Inventory (TRI) air emissions as reported by industrial facilities which listed Standard

Industrial Classification (SIC) 2865 and 2869 as applicable to them. The detailed TRI data is given in Appendix B. The HAP chemicals shown on the 63.104 and/or 63.183 lists were the only TRI chemicals included in the data base compiled by CMA.

CMA believes that the TRI data are an upper limit or what actual emissions subject to the HON can be because of the assumptions listed below.

- i) The data is based on all chemical manufacturers in SIC codes 2865 (Cyclic organic crudes and intermediates, and organic dyes and pigments) and 2869 (Industrial organic chemical, n.e.c.). Not all the manufacturers with emissions in these SIC codes are subject to the HON.
- ii) The data represent emissions from the whole facility with the SIC codes, not just the SOCOMI process units covered by the HON.
- iii) The data include emissions units that are not subject to the HON because of the differences in the applicability between SARA and the HON. The SARA data threshold for a given HAP is 12.5 tons per year manufactured or processed or five tons per year otherwise used. This is lower than ten tons per year emissions for a single chemical or 25 tons per year for a combination of chemicals.
- iv) There are, however, HAP's not included on the SARA list that will increase the total emissions of process units subject to the HON. CMA believes that in total, these emissions are small compared to the first three items. These HAP's include: acetophenone, caprolactam, dimethyl,

formamide, ethylidene dichloride, hexane, isophorone, 1,3-toluene diamine, triethylamine, and 2,2,4-trimethylpentane.

Additionally, CMA believes that emissions estimates are too high due to the projected growth in emissions due to production. The HON proposal uses a 16 per cent increase over a five-year period. This is inconsistent with TRI data which shows a 10 per cent decrease in a three-year period. Existing industry sources are taking steps already to reduce emissions and this is not taken into account in the emissions estimates. New sources will be regulated by existing regulations already in place, such as NSPS, NSR/Prevention of Significant Deterioration (PSD), and Reasonably Available Control Technology/Best Available Control Technology (RACT/BACT).

As further evidence of EPA's overestimation of baseline HAP emissions in the HON, CMA recently conducted a survey of member companies on its Air Toxics Work Group to determine the proportion of HAP emissions reported in the TRI inventory from SIC codes 2865 and 2869 that are associated with SOCM process units subject to the HON. The sites that responded represent 22,923 Mg/yr of the total 61,217 Mg/yr (or 38 per cent) of TRI HAP emissions presented in Appendix B. The survey results indicated that about 42 percent of the HAP emissions from SIC codes 2865 and 2869 come from units subject to the HON. CMA concludes that the total baseline HAP emissions subject to the HON likely are no greater than 25,711 MG/yr, i.e., 42 percent of 61,217 Mg/yr. This estimate is in stark contrast to EPA's estimate of 597,000 Mg/yr. We believe this major difference illustrates the inaccuracy of EPA's model plant approach for estimating emissions.

**d. Capital Cost Estimates Used In The BID Are Significantly Lower Than Estimates Based On Industry Cost Estimating Techniques**

CMA reviewed references from the BID used in developing capital cost estimates for the five kinds of emission points and compared them to industry capital cost factors. The comparison showed that industry capital costs estimating factors produce capital costs 200 to 400 per cent higher than factors used in the HON bid for the same project.

Specifically, the following references were checked:

- 1) OAQPS Control Cost Manual - Fourth Edition, January, 1990;
- 2) Part II: Factors for estimations capital and operation costs. Chemical Engineering, November 3, 1980, pages 157 - 162, by William M. Vatauvuk, and Robert B. Neveril;
- 3) Cost Engineers Notebook. American Association of cost Engineers, January, 1986.

The following differences in the EPA cost estimating techniques were noted in the comparison:

1. The type of factored estimates used in the BID do not fit the model plant situation. Factored estimates are very sensitive to proper application and can be misapplied giving improper results. Factored estimates in industry are most often used for comparing alternatives. They are not an accurate reflection of actual costs. References in the BID are for use in large package modules with little engineering and installation costs. Use of these factors assumes that these package modules are purchased with engineering done and minimal costs associated with installation. The model plant used bare equipment that requires large amounts of

engineering, instrumentation and installation costs. Extensive piping revisions, lack of utilities, need for more instrumentation, more engineering, and contingency are not adequately accounted for in this type of factored estimate. These items are particularly important in integrating new control equipment into an existing plant.

2. Comparison of engineering costs reveals that the BID factors are much lower than used in industry. The Cost Engineers Notebook gives engineering costs on the range of five to eleven per cent of total installed cost. Recent industry experience shows that this number is increasing with the need for instrumentation and documentation associated with the Occupational Safety and Health Administration (OSHA) Process Safety rule and large recordkeeping and monitoring requirements because of regulations such as the HON. As an example, for the engineering of a steam stripper the BID uses a factor of 5.3 per cent of total installed cost. Comparable industry factors using the same basis yielded 16 per cent (see example cost comparison).

3. Contingency is required for unforeseen items. The nature of factored estimates leaves many unforeseen items and hence leads to high contingency. Contingency on very preliminary estimates usually include funds for undefined scope. Projects grow in scope as they become more defined. Contingencies of 20 to 30 per cent of total installed costs are not unusual for very preliminary scopes such as those in the BID. For definitive estimates used to request funds, ten per cent contingency is used by much of industry.

Contingencies include monies for lack of utilities, unidentified instrumentation, site preparation, and modifications to existing processes to make necessary changes.

The Cost Engineers Notebook defines contingency in terms of cost overrun probability. This would typically be done on better defined estimates as funds are requested and not on factored estimates. However, most industry managers operate in the range of 20 to 30 per cent chance of cost overrun. Using the steam stripper example in the BID, the factored contingency is 1.6 per cent of total installed cost. This would lead to a 70 to 80 per cent chance of cost overrun on a better defined project. Industry will not take that chance of cost overrun. The contingency factors used in the BID are much too low.

4. The BID capital cost factors do not take into account factors currently affecting capital costs. These include the Occupational Safety and Health Administration's (OSHA) Process Safety rule, which began to be effective in 1992 and instrumentation required for compliance with environmental standards such as the HON. OSHA Process Safety requires that detailed hazard assessments be conducted on each new design. These not only take great amounts of engineering manpower, but also require additional equipment and controls to ensure safe operation. Documentation of each and every change in a design as well as completely accurate piping and instrumentation, electrical and other drawings must be completed. Detailed training manuals need to be developed and training needs to be conducted.

Regulatory monitoring has become so burdensome that much of the industry is becoming highly instrumented. Recordkeeping provisions require specialized configurations of computerized equipment. For example, for continuous records, 15 minute readings are required. This results in 96 data points per day that need to be stored for five years. Doing this manually becomes burdensome when several parameters need to be followed. Much of industry is adding instrumentation and computerization to handle this problem.

For these reasons, factors used in the past for instrumentation are inadequate. Again, using the steam stripper cost estimate, the 4.4 per cent of the installed cost is the factor used for instrumentation. This is too low.

5. Because of the OSHA Process Safety rule and very complex regulations like the HON, many regulatory projects are schedule driven. This means that a premium is paid for rush equipment and instrument delivery and for overtime installation. Industry experience for schedule driven projects add 20 to 30 per cent to installed costs. This is not reflected in the BID factors.

Together, the above factors lead to the conclusion that the capital cost estimates used by industry to actually construct similar equipment to that described in the HON are 200 to 400 per cent higher than those used in the HON BID. As a test, one member company compared the cost given in the BID for the steam stripper to an industry factored capital cost estimate and a recent (1992) steam stripping project completed for the Benzene Waste Operations NESHAP. The equipment installed in that project was very



similar to that described in the BID example. A summary of the comparison is given below.

	BID (\$K)	Industry Factored Estimate (\$K)
Direct equipment cost (excluding piping)	348	348.5
Piping	58	118.9
Direct Installation Cost	223	232.9
Indirect Installation Cost (excluding engineering and contingency)	87	106.1
Engineering	41	207.1
Contingency	12	160.7
Factored Cost Estimate (Total Cost)	768	1258.0
Actual Cost of Benzene NESHAP Project		2648.5

As shown by this comparison, the BID factored estimates give much lower estimates than that of an industry factored estimate. This shows that industry factored estimates tend to increase as the scope becomes better defined. Moreover, the actual project cost exceeded the industry factored estimate by a factor of 2.1 and the EPA factored estimate by almost a factor of 4.

**e. The Cost To Industry Per Ton Of Emission Reduction Is Too Low**

In summary, based on the information given in the preceding sections, EPA has overestimated baseline emissions and emission reductions by at least a factor of 18 and underestimated costs by a factor of two to four. Therefore, EPA has significantly underestimated the per ton cost of the various control options under consideration by a factor of 36-72. Taking the true cost of each option into consideration, it is apparent that

EPA has failed to establish a basis for adopting any control alternative above the MACT floor.

EPA must take into account the fact that it has underestimated costs and overestimated benefits in evaluating all aspects of the final rule. In particular, CMA believes that EPA cannot justify setting MACT control levels more stringent than the floor for process vents, storage tanks, and certain wastewater provisions. Further, EPA should also take steps to further reduce the monitoring, recordkeeping, and reporting burden of the rule by allowing data compression techniques, eliminating negative reports, and minimizing requirements for Group 2 emission points.

#### **6. EPA Should More Fully Examine Multimedia Impacts**

Several of the reference control technologies included in the proposed rule produce multimedia impacts, particularly nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) emissions. For process vents and transfer operations, the reference control technology is combustion for nonhalogenated vent streams and combustion followed by acid gas scrubbing for halogenated vent streams. For wastewater operations, the proposed reference control technology is steam stripping. In both cases, these technologies generate NO<sub>x</sub> and CO emissions, which will be subject to review and possibly additional controls under other CAA programs including NSR and PSD. Acid gas scrubbing will generate a wastewater stream that will require treatment and disposal.

CMA has performed an analysis of the multimedia impacts associated with the reference control technologies for process vents, transfer operations, and wastewater

TABLE 2 - NO<sub>x</sub> EMISSIONS FROM VARIOUS CONTROL DEVICES

STATE	EQUIPMENT	CAPACITY	LB/MM BTU	TONS/YEAR
TX	Flare	N/A	2.3 lbs/hr	10
TX	Flare	8.8 MM BTU/hr	0.12 lbs/MM BTU	4.6
LA	Flare	0.6 MM BTU/hr	0.1 lbs/MM BTU	0.3
CA	Flare	30 MM BTU/hr	0.06 lbs/MM BTU	106
AL	Process Heater	N/A	0.08 lbs/MM BTU	-
AL	Process Heater	5 MM BTU/hr	0.16 lbs/MM BTU	3.5
AL	Process Heater	202 MM BTU/hr	0.018 lbs/MM BTU	16
LA	Process Heater	99 MM BTU/hr	0.12 lbs /MM BTU	52
AL	Boiler	382.4 MM BTU/hr	0.7 lbs/MM BTU	1172
CA	Incinerator	45000 bbl/hr	1.4 lbs/hr	6.1
CA	Thermal Incinerator	Vapors from	6.92 lbs/hr	30.3
		100,000 bbls/day all		
		transfer operation		
LA	Waste Gas Incinerator	22 MM BTU/hr	0.49 lbs/MM BTU	51.5
LA	Incinerator	2 MM BTU/hr	0.1 lbs/MM BTU	0.9
LA	Waste Incinerator	25 MM BTU/hr	7.97 lbs MM BTU	873
LA	Waste Incinerator	70 MM BTU/hr	0.61 lbs/MM BTU	187
LA	Waste Incinerator	50 MM BTU/hr	0.73 lbs/MM BTU	160
TX	Catalytic Incinerator	10 MM BTU/hr	0.012 lbs/MM BTU	0.5
LA	Catalytic Incinerator	17.4 MM BTU/hr	0.1 lbs/MM BTU	7.6
AL	Rotary Kiln	60 MM BTU/hr	1.58 lbs/MM BTU	415
Al	Fixed Hearth	33 MM BTU/hr	1.45 lbs/MM BTU	210

Reference: BACT/LAER Clearing House

operations, which is included as Appendix C. This analysis also considers other regulatory programs that may apply to these sources. According to the results of this analysis which considered model plants, control of process vents can result in significant quantities of NOx, CO and sulfur dioxide (SO<sub>2</sub>) emissions. These findings are further supported by actual NOx emissions data reported in the BACT/LAER clearinghouse for combustion devices. These data, which are presented in Table 2, indicate that NOx emissions from devices including incinerators, flares, and process heaters can range from less than one ton per year to over 1100 tons per year. These emissions not only produce undesirable secondary environmental impacts, they can interfere with a facility's ability to comply with the rule on time. If these emissions exceed threshold increases under new source review or PSD, the facility will have to apply for a construction permit for the control device and, in some cases, obtain emission offsets. These activities can significantly increase the time needed to come into compliance. In the case of offsets required in nonattainment areas, it may not even be possible to find the necessary offsets. CMA recommends that EPA more fully examine the multimedia impacts associated with the proposed reference control technologies and consider alternative compliance approaches in light of these recommendations.

In particular, CMA recommends that EPA add the following provisions to Subpart F:

"If the owner or operator of a source demonstrates that by employing any of the Reference Control Technologies listed in Subpart G to an emission point (process vent storage tank, loading rack or wastewater handling/treatment unit) the negative environmental impact that would result from such control, when taking into account impacts to all environmental media (air, water, and solid waste) would be greater than without the

application of such control, then the control of such emission point is not required."

"If the owner or operator of a source demonstrates that by employing an Alternative Control Technology or work practice proposed by the source the negative environmental impact that would result from such control or work practice, when taking into account impacts to all environmental media (air, water and solid waste), would be less than by employing any of the Reference Control Technologies, then such Alternative Control Technology or work practice will be an acceptable substitute for the Reference Control Technologies."

#### **7. MACT Is Properly Regarded As A Technology Standard**

CMA supports the concept of Reference Control Technology (RCT) as the basis for the MACT standard under Subpart G. This concept is consistent with the statute's technology-based approach under section 112(d). Section 112(d)(2) of the Act characterizes the MACT standard as the "application of measures, processes, methods, systems or techniques which ... collect, capture or treat such pollutants when released from a process, stack, storage, or fugitive emissions point...".

##### **a. EPA Has Properly Selected Reference Control Technologies Which Are Generally Applicable To The Entire Source Category For Vents, Tanks, And Transfer Operations**

CMA supports EPA's determination that the floor (and MACT itself) is to be based on controls that are generally applicable to sources in the category. This approach is dictated by the statutory definition of MACT as a degree of reduction that is "achievable for new or existing sources in the category or subcategory to which such emission standard applies . . . ." Section 112(d)(2). A standard is by definition "achievable" for "sources in the category" only if it reflects technology that is itself generally applicable to -- and hence "achievable" by -- the sources in the category.

The identification of the MACT floor with "generally applicable" controls is also consistent with the overall statutory scheme. Section 112 anticipates -- indeed requires -- that MACT is to be imposed primarily through generally applicable regulations developed for entire categories of sources. Except in special circumstances (where generally applicable standards have not yet been developed), MACT is not to be a source-specific determination. Rather, it is to specify an overall "degree of reduction" applicable to an entire category of sources. In choosing this approach, Congress implicitly recognized that EPA will have to make generalizations in developing the specific controls to be required under MACT standards. EPA's focus on generally applicable controls in developing the HON therefore satisfies both the language and the intent of the statute.

**b. The Statute Does Not Require A Specific Per Cent Reduction In HAP Emissions**

Under CAA section 112(d)(3), EPA must establish a "degree of reduction" at least as stringent as the MACT floor. The particular "degree of reduction" is to be determined by the Administrator considering the factors laid out in section 112(d)(2): cost, nonair health and environmental impacts, and energy requirements. The Act does not specify any particular per cent reduction that is to be achieved under a MACT standard.

The idea that the Act might require some specific per cent reduction in emissions is apparently derived from the 1990 Senate Bill, S.1630, which would have provided that "[t]he Congress finds that a reduction of 90 per centum (94 per centum in the case of particulates) from uncontrolled levels is an appropriate benchmark for emissions standards applicable to existing sources under this subsection." S. 1630, sec. 112(d)(3); see Sen. Rep. No. 228, 101st Cong., 1st Sess. 170 (1989). However, this language was dropped from the bill in Conference and is

not included in the statute as enacted by Congress. The statute as enacted plainly does not require a 90 per cent reduction in emissions. First, and most fundamentally, the plain words of the Act contains no mention of a specific per cent reduction. Second, where Congress deletes provisions from a bill and enacts the modified version, as is the case here, the deletion is considered intentional. Rather than a specific per cent reduction, MACT must result in a level of control consistent with the floor and the factors considered under 112(d)(2).

**c. It Is Premature To Focus On Residual Risk**

In the preamble, EPA seeks comment on whether residual risk should be calculated on a plant-wide basis, on a source category basis, or on some other basis. Preamble, p. 62646. EPA raises this issue in the context of its rationale for allowing cross-pollutant emissions averaging, which is based in part on the Agency's belief that owners and operators of SOXMI sources will have an incentive to avoid increases in emissions of highly toxic chemicals under emissions averaging because such increases could result in additional controls being required under subsequent residual-risk standards. As discussed in section III. F.4., EPA has the authority to allow emissions averaging without ranking pollutants by toxicity -- and indeed any such ranking for purposes of this rule would be highly inappropriate. As a result, CMA does not believe that the issue of the appropriate methodology for calculating residual risk should be addressed in the HON.

Congress, in realization that the health-risk approach in old section 112 did not work, created in new section 112(d) a technology-based approach to standards development. Former section 112 did not work because there was no acceptable method to accurately assess health risks from emissions. Thus, in the amendments to section 112, Congress directed the

National Academy of Science (NAS), the Surgeon General, and EPA to develop a scientifically sound technique for health risk assessment. The Congressional intent behind these provisions is to defer risk based standards until better methods are defined. Regulatory decisions based on health risk criteria are to be made later under section 112(f).

This section requires a thorough investigation by EPA of the issue of residual risk. In its report to Congress, EPA may make any recommendations it chooses regarding the appropriate methodology for calculating residual risk and Congress, in enacting new legislation on this issue, may choose to adopt EPA's or some other methodology.

The language of section 112(f)(2), requiring EPA to promulgate standards for categories or subcategories of sources regulated under section 112(d), does not take effect unless Congress fails to act on EPA's recommendations for new legislation. As a result, the appropriate forum for exploring methodologies for calculating residual risk is in EPA's investigation and report to Congress under section 112(f)(1). Any decision by EPA on the methodology to be employed under section 112(f)(2) should be deferred until after EPA submits its report to Congress. At this time, neither CMA nor EPA has enough information on residual risk to discuss the appropriate regulatory methodologies.

We believe the structure of section 112 shows that Congress intended to proceed with emission reductions of hazardous air pollutants on an accelerated basis under section 112(d). Congress did not want to slow the process with the uncertainties of health risk assessment. Health risk assessment, therefore, properly belongs under section 112(f) and should have no role under section 112(d).



## C. COMPLIANCE

Compliance determinations are critically important to companies affected by CAA standards. The severe civil and criminal penalties imposed by the CAA of 1990 elevate compliance concerns to new heights. Compliance records are extremely important to companies as they strive to maintain the trust and respect of their surrounding communities, their shareholders, and regulatory officials. CMA believes it is important to create a compliance scheme under the HON that will ensure that the standard is met, but will also safeguard against companies being unfairly penalized.

We believe the Agency has done a credible job in developing the compliance approach under the HON. For the most part, we support the compliance provisions. However, as discussed in Section II.D. of these comments, we have concerns about the monitoring, recordkeeping, and reporting requirements of the rule. EPA properly recognizes that the HON is primarily a technology standard. EPA also properly recognizes that measured parameters are surrogates for determining operating efficiency, and that they are subject to fluctuation.

1. **Compliance With MACT Is Properly Defined As The Installation And Operation Of The Prescribed Reference Control Technology, Or A Prescribed Control Efficiency**

CMA supports the Agency's basic approach to compliance. The compliance provisions of section 63.112(c)(1) reasonably regards compliance as the application of the RCTs that achieve a required control efficiency on Group 1 emission points. The required level of performance of the RCT is described in terms of monitored operating parameters. The rule states that "the parameter monitoring data for Group 1 emission points and emissions points

included in emissions averages shall be used to determine compliance with the required operating conditions for the control device." Section 63.152(c)(2)(ii).

We think it is reasonable to base compliance on the operation of the prescribed control device. This approach makes sense because the HON is primarily a technology standard -- the rule requires sources to install and operate specific pollution control technologies (the RCT) on certain emission points. It is logical that compliance should focus on the proper installation and operation of the reference control technology.

**a. The HON Appropriately Allows For Alternative Compliance Measures, Such As Emissions Averaging, But Clarifications Are Needed**

CMA supports the alternative compliance option presented in section 63.112(c)(2). This approach allows a source to comply with the standard by maintaining emissions below an emissions level specified in section 112(a). However, we are concerned that §63.112(c)(2) may be interpreted to mean that if this option is selected for any group of emission points in a source, then all emission points must comply with the overall emission level in §63.112(a). Typically, we expect that emissions averaging will be used selectively on a small percentage of total emission points. Therefore, we recommend that §63.112(c)(2) be clarified that emission points not included in an emissions average may comply in accordance with §63.112(c)(1).

In general, we believe this emissions averaging alternative is an innovative and reasonable approach to compliance with the standard. In section III. F. of these comments, CMA presents detailed comments on the emissions averaging provisions of this proposal.

**b. The HON Appropriately Allows For Alternative Control Technologies**

Section 63.102(c) of the proposed rule appropriately allows for "alternative means of emission limitation" for purposes of compliance with the HON. CMA supports this approach and recommends that EPA streamline it the final rule to ensure that it encourages innovation and provides opportunity for cost-effective approaches. Specifically, EPA should avoid imposing more stringent monitoring, recordkeeping, and reporting requirements for facilities with an alternative means of emission limitation. This would serve as a disincentive to facilities that are contemplating use of innovative control technologies. Likewise, while EPA must provide for public comment on any proposed alternative means of emission limitation, as required by CAA Section 112(h)(3), EPA should not encourage a process that will lead to excessive delays in approval due to an extended schedule for public hearings. Again, since facilities will be striving to meet strict HON compliance deadlines, excessive approval times will serve as a disincentive to facilities for using innovative controls.

CMA recommends that the final rule contain a streamlined provision for granting alternative means of emission limitation, as described above.

**2. EPA Properly Recognizes That Well Maintained Control Equipment Cannot Continuously Operate Within Prescribed Parameters**

The compliance provisions of the proposed rule correctly reflect two realities of operating air pollution control devices. One reality is that even the best maintained control equipment cannot continuously operate within prescribed operating parameters. Another reality is that measured operating parameters are merely surrogates for measuring actual control efficiency -- as noted below, operation outside parameter ranges does not definitively prove that

a device is not achieving the desired operating conditions. These two facts are very significant in light of the severe penalties for noncompliance found in section 113 of the CAA. Therefore, EPA wisely proposes to allow a number of excused periods before a source may be considered to violate the standard.

**a. Operation Outside Prescribed Parameter Ranges Is Not Irrebuttable Proof Of Violation**

CMA disagrees with the provision in proposed section 63.152(c)(2), which states that after a source exceeds the number of excused deviation periods, "the owner or operator shall be deemed to have failed to have applied the control in a manner that achieves the required permit conditions." This provision implies that deviation from parameter ranges is irrebuttable proof of violation of the MACT standard. CMA asserts that such deviations, although they may indicate that the required operating conditions have not been met, cannot create an irrebuttable presumption of a violation. The source should always have the ability to demonstrate, through performance testing or other appropriate evidence, that no violation has occurred.

**b. Three Per Cent Excused Deviation Periods For Control Devices Is Reasonable And Necessary**

As discussed elsewhere in these comments, the HON MACT standard is a technology standard. To comply with MACT, an owner/operator must properly install, maintain, and operate the reference control technology. When a control device is installed, maintained, and operated as prescribed, it is assumed to achieve the desired control efficiency.

Excused periods from prescribed operating parameters are necessary because numerous events can cause a device to deviate from prescribed parameters despite the best efforts of an owner/operator. As noted above, a source may still be in compliance despite these

measurements. For instance, severe meteorological conditions such as wide temperature fluctuations or icing often lead to deviations in monitored parameters. Mechanical problems such as thermocouple or condenser failure may occur. Other events like unanticipated electrical problems or off-specification feedstocks will also cause deviations in monitored parameters. In Table 3, CMA presents conditions which may lead to deviations despite vigilance by the owner/operator. These examples serve to illustrate the need for a percentage of excused deviation periods before enforcement becomes an option.

CMA recommends that sources be allowed three per cent excused deviation periods from daily average parameter values during a single reporting period. We believe that this is consistent with the proper operation and maintenance of various control devices. If a source experiences three per cent or less deviation periods from the daily average value, then the owner/operator could certify continuous compliance during the reporting period. If a source records more than three per cent deviation periods, then the source could be in violation of a permitted operating condition.

The three per cent figure is merited not only by the unanticipated events outlined above, but also by the very nature of the HON. The HON is the most ambitious air toxics control regulation ever proposed, and there is great uncertainty over how well this regulation can be met by affected sources. The controls required by the rule are complex, and the technology simply does not exist to measure their operation directly in a manner that is both cost-effective and totally reliable. The indirect measurement methods required by the HON have never before been attempted on such a wide scale. Sources and regulatory authorities may find that the requirements and the compliance schedule of the HON cannot be reasonably met in the

**TABLE 3 - CONDITIONS WHICH MAY CAUSE PARAMETER EXCURSIONS**

Examples of Possible Excursion	Time of Excursion	Frequency of Occurrence (a)	Efforts Needed to prevent (b)	Re-quire-ments to Stop	Length of Time to Stop
Control Device Short Malfunction	Medium*	PM		M,EC,PC SSM	Short
Process Unit Upset	Med	Frequent	D,PM,MO	SSM	Short
Statistical Variability	Short	Dependent on set parameter	D	W	Short
Instrument Problems	Short	Frequent	PM,D	M,EC	Short
Control Valve Problems	Short	Med	PM	M,EC,SS M	Short
Extreme Envir. Long Conditions	Long	Rare	--	W,PC	Med-
Catalyst Poisoning	Long	Rare	PM,MO	PS	Med
Off Spec. Feed or Fuel	Med	Med	Mo	SSM	Short
Cooling Water Contamination	Med	Rare	MO	M-W	Med
Vendor Error/Miscalculation	Long	Rare*	D	PC	Long

**Time of excursion** - Short = < 1 Day, Med = 1 -2 Days, Long = 2 Days or More

**Frequency of Occurrence** - Frequent = Several X/Yr, Med = 1X/Yr, Rare - 1X/ in several years

**Efforts needed to prevent** - PM - Preventive Maintenance, D- Design, MO = Monitoring, M = Maintenance, PS = Process Shutdown & Major Maintenance, PC = Permit Change, W= Wait, EC = Equipment Change, SSM = Startup, shutdown & Malfunction Plan.

**Length of time to stop** - Short = < 1 Day, Med = < 1 Week, Long - Several Weeks or Change in Standard needed

a) Represent conditions after systems complete initial start-up and reach equilibrium operating conditions. In cases identified by \* deviations will be more frequent during early operation.

b) Does not necessarily imply that 100 per cent prevention is always possible.

initial phases of implementation. At least in the initial years of the program, the rule should allow for a three per cent excused deviation period.

CMA proposes that EPA adopt a three per cent figure in section 63.152(c) for at least the first five years after the compliance date. If data from sources' periodic reports shows that an adjustment is merited, then the Agency should conduct a new rulemaking to set a different figure at that time.

3. **Site-Specific Parameter Ranges Will Reasonably Account For Variations In Emission Points And Control Designs**

CMA supports the proposal to require sources to establish site specific parameter ranges. The parameter ranges, which indicate proper operating conditions, must be as accurate as possible. This is especially true given the extreme penalties for noncompliance imposed by the 1990 amendments to the CAA.

As noted elsewhere in these comments, monitored operating parameters are surrogate measurements for estimating a control efficiency. If a device operates within a prescribed range of parameter values, then it can be assumed that the device meets the desired operating conditions. If not, then the device might not meet the desired conditions. If the regulatory authority ultimately determines that the device fails to meet prescribed operating conditions, then the source could be subject to substantial penalties. Thus, it is crucial that the prescribed operating parameters most closely reflect the desired operating conditions.

CMA believes that the site-specific approach properly balances the need for technical certainty with the reality of operational variability. The wide variety of processes and operating conditions to be regulated by the HON does not lend itself to a fixed set of parameters for all desired operating conditions.

4. **EPA Appropriately Measures Compliance Based On A Twenty-Four Hour Operating Day**

EPA appropriately exercises its discretion to base compliance on a source's twenty-four hour operating day. CMA supports the provision in section 63.152(b)(2)iii that would require a source to define an operating day. The operating day is a sensible and fair time period from which to base compliance. The twenty-four hour operating day reasonably reflects the operating conditions at most sources.

5. **One Year Compliance Extensions Must Be Readily Available**

CMA is concerned that despite good faith efforts, many individual sources may not be able to meet the HON's three year compliance date. EPA has recognized this in the preamble at p. 62657 and has provided procedures for obtaining the one-year compliance extensions allowed under CAA section 112(d). However, under §63.151(a)(6)(i), a source can only apply for the extension prior to the date that it submits an implementation plan. CMA contends that sources should be allowed to apply for extensions up until the HON compliance date. EPA should revise the provision in section 63.151(a)(6)(i), replacing it with a provision stating that extension requests can be filed up to the compliance date.

a. **Limited Engineering, Equipment, And Permitting Resources Will Make Extensions Necessary**

There is great potential that "compliance gridlock" will hinder many sources from meeting the three-year compliance deadline. CMA expects that the large increase in demand for control equipment, engineering services, construction services, testing services, etc., necessary to comply with HON requirements will be superimposed on an increased demand resulting from other CAA programs, e.g., Title I, and company voluntary programs. This